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ABSTRACT

A study designed to obtain information regarding vocational evaluation programs, their staff, and the vocational evaluation services they provide is presented. A survey questionnaire was constructed and distributed on a national level to facilities identified as having at least one full-time vocational evaluator. Data was analyzed with respect to total population, and separately with respect to each of sub-populations on selected criterion variables of (1) primary emphasis of the facility, (2) type of facility, (3) geographic location, (4) type of handicapping conditions served, and (5) relationship of size of total staff to vocational evaluation staff. Overall findings indicate there are some common threads in patterns of vocational evaluation services provided by various types of facilities and programs identified. It is significant that there are differences in vocational evaluation services as a function of the emphasis, location and staffing patterns of these facilities. Data from this study are stored on IBM cards. (Author/NF)

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STATE-OF-THE-ART IN VOCATIONAL REHABILITATION

REPORT OF A NATIONAL SURVEY

(July 1969)

Ray Sankovsky

Principal Investigator

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State of the Art
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REPORT OF A NATIONAL SURVEY

ABSTRACT

This was a study designed to obtain information regarding vocational evaluation programs, their staff, and the vocational evaluation services they provide. A survey questionnaire was constructed and distributed on a national level to facilities identified as having at least one full-time vocational evaluator. The data was analyzed with respect to the total population, and separately with respect to each of the sub-populations on the selected criterion variables of (1) primary emphasis of the facility, (2) type of facility, (3) geographic location, (4) type of handicapping conditions served, and (5) relationship of size of total staff to vocational evaluation staff.

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State of the Art

PATTERNS OF SERVICES IN VOCATIONAL EVALUATION: REPORT OF A NATIONAL SURVEY (July 1969)

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SUMMARY

The purpose of this study was to provide information on selected characteristics of vocational evaluation programs, their staff and the services they provide, and some of the characteristics of the facilities that provide vocational evaluation services.

A survey questionnaire was designed to obtain the desired information and mailed to 170 vocational rehabilitation facilities throughout the United States. Each of these facilities previously reported at least one full-time staff member in vocational evaluation (ARC Directory of Rehabilitation Facilities, 1968). The findings reported are based on a 66 percent return of the original questionnaire.

Sixty-three percent of the respondents indicated vocational adjustment, 26 percent indicated physical restoration, and 9 percent reported social and behavioral adjustment as the prime emphasis of their respective facilities.

Seventy-one percent of the total population classified themselves as voluntary non-profit facilities, and 29 percent indicated governmental facilities.

Geographically, 28 percent of the facilities were located in region II, and 22 percent were located in region V. Fifty percent of the facilities were distributed relatively equally among the remaining regions.

The mean number of professional staff reported was 42, and the mean number of vocational evaluation staff reported was slightly more than 6.

The findings on educational attainment revealed that approximately 75 percent of the vocational evaluators employed had either a bachelor's or master's degree.

The educational backgrounds most frequently reported for vocational evaluators were equally distributed among Rehabilitation Counseling, Psychology, Industrial Arts and Teaching. A mean rank of the training or experience considered most appropriate for vocational evaluators by the respondents, yielded the following hierarchy: Vocational Evaluation, Rehabilitation Counseling, Psychology, Industrial Arts, Work Experience, Teaching, Occupational Therapy, Personnel, Social Work, School Counseling and Sociology.

An intellectual handicap was the most frequently reported condition served by the evaluation units, followed by psychological and physical handicapping conditions.

Over 50 percent of the client evaluations were reported to be completed within a 3 to 8 week time interval, with the higher percentage of completions in a 3 to 5 week period.

The total responses indicated that 23 percent of the clients went into a work adjustment program following vocational evaluation; 20 percent went into training; 16 percent went into a transitional workshop; 12 percent went into direct placement; 10 percent were found not feasible for further vocational exploration; 7 percent went into on-the-job training; 7 percent went into a terminal workshop; and 5 percent went into continued education.

Approximately 50 percent of the respondents indicated the use of a fixed time interval for vocational evaluation (e.g., 4 week program); the remaining half indicated an open-ended time interval.

The actual active caseload for vocational evaluators ranged from less than 2 clients to more than 18 clients. Over 60 percent of the distribution averaged

between 3 and 10 clients, with a peak of 21 percent reporting 5 to 6 clients.

The average number of evaluations per month for a unit ranged from 1 to more than 50. Approximately 60 percent of this distribution ranged between 1 and 15 clients per month, with 27 percent reporting between 1 and 5 clients.

Seventy-five percent of the facilities reported providing physical capacity analyses, either within or outside the facility.

Over 90 percent of the facilities reported the use of psychological testing. General ability or intelligence testing was the most frequently cited, followed in order by aptitude testing, dexterity and performance testing, and vocational interest surveying. The most frequently reported time intervals for providing psychological testing were 1 to 3 hours and 4 to 6 hours. Each of these time intervals represented 35 percent of the respondents.

Approximately 90 percent of the respondents reported that behavioral assessment was provided within or outside the facility.

Approximately 70 percent reported using job analysis. The most frequent time interval cited for job analysis ranged between 1 and 6 hours.

Over 80 percent of the respondents reported using job samples. More than 50 percent of these respondents indicated spending 23 or more hours per client on job sampling. No characteristic trend was observed with respect to the number of job samples used. This distribution ranged from less than 5 to more than 50 job samples.

Approximately 80 percent of the respondents reported using the job tryout. The job tryout was reported as being predominantly used in service or vocational training areas, and somewhat in other facilities and in business or industry. The time used for tryouts varied considerably across a range from less than one day to more than 20 days. Characteristic peaks were observed at 5 to 7 days and again at more than 20 days.

Approximately 80 percent of the respondents indicated using the situational assessment approach. The most frequently reported time interval for situational assessment was 2 to 4 weeks.

A ranking of the 5 evaluation approaches or techniques in the order that the respondents felt them to be most useful yielded the following hierarchy; Job Sample, Situational Assessment, Job Tryout, Psychological Testing and Job Analysis.

Over 90 percent of the respondents indicated that work adjustment was provided either within or in conjunction with their facilities.

The findings reported here reflect the trends of the total population. Additional analyses were performed on the sub-populations of specific criterion variables. The criterion variables selected for this study were:

1. Primary emphasis of the facility
2. Type of facility
3. Geographic location
4. Type of handicapping condition served
5. Relationship of the size of the full-time staff to the vocational evaluation staff.

The respondents who selected a particular classification on a criterion variable were pooled and analyzed as a sub-population.

An edited version of the final report was distributed to the administrators of the rehabilitation facilities that participated in this study.

INTRODUCTION

Background

Vocational evaluation in the context of the more generic rehabilitation assessment process has been receiving increased attention over the past two decades. This emphasis is best exemplified in the new and modified legislation and in the additional services provided by rehabilitation facilities.

From the standpoint of legislation, the Medical Facilities Survey and Construction Act of 1954 made it mandatory that any new rehabilitation facility constructed under its auspice have included within the program a pre-vocational activity unit. White and Redkey (1956) described this pre-vocational unit as a vocational evaluation laboratory in which the client performed a variety of tasks on a trial basis for some minimum period of time. The objective of this unit was to obtain the best estimate of a client's vocational potential.

The 1954 Amendments to the Vocational Rehabilitation Act (Public Law 18-565, 1954) added impetus to the vocational evaluation movement by providing the monies for the expansion and improvement of rehabilitation facilities and workshops. In addition, this 1954 legislation for the first time provided federal funds to support research, and to plan and implement new or improved programs in rehabilitation. The impact of this legislation on the vocational evaluation movement was reported by McCauley (1964) as significant for providing the development and testing of new models and techniques in evaluating the vocational potential of handicapped clients, beyond the traditional approach of psychological assessment.

The 1965 Amendments to the Vocational Rehabilitation Act (Public Law 89-333, 1965) provided for an extended evaluation of the client's employment potential for a period up to a maximum of six months, with an eighteen month provision for the mentally retarded and certain other approved handicapping conditions. Prior to this 1965 legislation many potential rehabilitation clients could not receive services because their employment potential could not be fully evaluated. Hoffman (1967) noted that this 1965 legislation brought the vocational evaluator more intrinsically into the total rehabilitation process as the critical determiner of eligibility for the more severe cases. This 1965 legislation also provided monies for the actual construction of rehabilitation centers and workshops, and the improvement of workshops through: technical assistance, grants, training service projects, and the establishment of a National Policy and Performance Council.

The 1968 Amendments to the Vocational Rehabilitation Act (Public Law 90-391, 1968) are the most recent legislation that significantly affect vocational evaluation. This legislation provides for a separate funding of vocational evaluation and work adjustment services. Federal grants to states are authorized to encumber ninety percent of the costs of vocational evaluation and work adjustment. In addition to the special funding, the scope of the target population for receiving these services is expanded by the Vocational Rehabilitation Amendments, 1968, Sec. 15(a) (4)F to include those:

> ...individuals disadvantaged by reason of their youth or advanced age, low educational attainments, ethnic or cultural factors, prison or delinquency records or other conditions which constitute a barrier to employment.

From the standpoint of the services being provided in rehabilitation facilities, vocational evaluation is expanding. Sixty-nine percent of the 484 facilities listed in the Directory of Rehabilitation Facilities (1968) indicated

that they provide vocational services and twenty-eight percent of these facilities indicated vocational evaluation as the program of prime emphasis.

To what can this growth and expansion of vocational evaluation services be attributed? Redkey (1957) accounted for the initial movement on the basis of, (1) the recognition of team work as an essential criterion for the successful rehabilitation of the severely disabled, and (2) the public acceptance of rehabilitation and the need for expanded services. It is likely, however, that this growth and emphasis on vocational evaluation continued as a matter of necessity. The expanded definition of a handicap (as noted earlier) served but to increase an already overwhelming backlog of potential rehabilitation clients. Nixon (1968) estimated that there now exists a backlog of over 5 million mentally and physically handicapped persons in need of services and that this backlog is increasing at the rate of 300,000 a year. The need to provide more adequate services for these individuals has helped generate the legislation to provide the necessary services and monies to conduct the programs.

General Statement of the Problem

As a result of the legislation and the increased services provided by rehabilitation facilities, a variety of philosophies, techniques, and methodologies have been developed for evaluating the vocational potential of rehabilitation clients. To complicate matters, differences exist not only with respect to the location at which these services are provided but also with respect to the staff that provides the services. Moed (1960) noted that vocational evaluation services were provided in medically oriented centers, vocationally oriented centers, workshops, special evaluation units and occupational therapy departments. He further indicated that the staff that provided these services included occupational therapists, industrial arts teachers, vocational counselors,

vocational evaluators, and individuals with industrial experience.

If any fruitful efforts are to be made in developing a more effective system of vocational evaluation, a basic understanding of the ongoing effort is imperative. To achieve a better understanding of the current state of the art in vocational evaluation, the fundamental questions of what, where and how are vocational evaluation services provided must be answered.

It was the purpose of this study to describe and analyze the patterns of vocational evaluation services that are being provided by a representative sample of vocational evaluation units throughout the United States.

Need for the Study

The need for a comprehensive study is indicated by the discrepancy between the current emphasis on vocational evaluation and the paucity of literature and information available on vocational evaluation programs.

After Neff (1960) reviewed the literature on vocational evaluation services, he reported the serious need for an accurate description of what was being done. He noted that perhaps more energy and effort had been expended in devising evaluation systems and programs than in appraising them.

Judd (1967) in summarizing a sectional meeting at the Vocational Evaluation Curriculum Development Workshop reported that Vocational Evaluation needed more intense exploration on an academic and national level if a more standard and uniform approach was to be realized.

Nadolsky (1966) in support of a more concerted effort to understand vocational evaluation indicated that the concept of Vocational Evaluation, its purpose, methodology, techniques and definition, still remains nebulous.

Gellman (1968) in the quest for improving vocational evaluation techniques in order to increase the effectiveness of the rehabilitation processes observed

that a striking omission in professional literature on vocational rehabilitation was the absence of a sustained discussion of the theory or principles of vocational evaluation.

A final justification for this study is that prior to any adequate evaluation of the current status of vocational evaluation there must exist a basic understanding of the existing programs.

Review of Relevant Literature

History of the Vocational Assessment Process

The history of vocational assessment had its origin in unscientific methodology. In primitive tribes, Campbell (1968) noted that warriors, hunters, or priests were selected on the basis of a variety of external factors such as: moon, winds, storms or physical characteristics. Moreover, the handicapped individual in these primitive societies was at the discretion of the cultural patterns. A psychological or behavioral anomaly could be considered either a curse or a blessing, and could result in either the destruction or the deification of the individual (Jaques, 1960).

The study of phrenology marked a transition to a more systematic approach for evaluating vocational potential. According to this theory, abilities and aptitudes were localized in certain parts of the brain, and any overdevelopment of these centers indicated a particular talent in the respective area. To determine an individual's potential aptitudes, the various nodules on his skull were located and correlated with the talent areas they represented (Hilyard and Atkison, 1967).

The gradual realization that man's vocational destiny was not a function of external forces or physical characteristics but in a large part dependent on

his abilities, aptitudes, and desires, led to the development of a more scientific approach for assessing vocational potential. Among the early pioneers who provided the foundation for this scientific and empirical methodology were: Charles Darwin, who in the concept of individual differences provided the cornerstone for systematic study; Wilhelm Wundt, who founded the first psychological laboratory at Leipzig and attempted to establish psychological laws that would have the constancy of laws found in physics; Francis Galton, who initially devised ways of measuring physical and mental capacities; and McKeen Cattell, who combined Wundt's and Galton's procedures for measuring memory and sensory acuity in order to identify superior individuals (Cronbach, 1960). These early efforts were the foundation for the subsequent psychological testing and personnel selection movements.

The vocational assessment process in rehabilitation had its initial focus on psychological testing. Gradually, however, new approaches for assessing the vocational potential of rehabilitation clients were sought when psychological testing was not found to be an adequate assessment technique for a select portion of the rehabilitation population. Spurred by monies made available for research and demonstration, a variety of assessment approaches were explored.

The vocational assessment process in rehabilitation has been identified by Moed (1960) and Neff (1966) as consisting basically of five approaches:

1. Psychological Assessment
2. Job Analysis Assessment
3. Job Sample Assessment
4. Situational Assessment
5. Job Tryout Assessment

Although the vocational evaluation process is not limited in content to these five techniques, they comprise in their application, the bulk of the vocational evaluation services provided, and for this reason the literature review will focus primarily on these approaches to vocational assessment.

Psychological Assessment

The psychological assessment technique had its origin around the early 1900's in the work of Alfred Binet. Binet reported that sensory judgment was not significantly related to general mental ability but that general mental functioning was:

> ...the tendency to take and maintain a definite direction; the capacity to make adaptations for the purpose of attaining a desired end; and the power of auto-criticism (Terman, 1916, p. 45).

These findings in turn, initiated the search for general and special abilities.

In addition to tests of general and special abilities, the psychological assessment process expanded into tests of typical performance where the objective was not to assess what an individual could do, but what he did. Classified under tests of typical performance, Cronbach (1960) listed: interest inventories, personality inventories and structured observation.

The complete history and development of the psychological assessment techniques has been outlined by Super and Crites (1962). The significance of this movement is indicated by the over two-thousand psychological tests known to be in print (Buros, 1965).

Assets and Limitations of Psychological Assessment: Several advantages for using the psychological assessment approach in evaluating the vocational potential of rehabilitation clients have been noted.

Among the advantages of psychological testing Neff (1966) included:

1. The minimum cost when compared to other techniques.
2. The good reliability derived from the standardization procedure typically employed in developing psychometric instruments.
3. The ease and quickness of administration and scoring.

4. The ability of psychological tests to provide information that cannot typically be obtained by another process (i.e.-I.Q.)

5. The use of psychological testing as a screening device to point up the limitations and strengths of a client, and to provide guidelines for the ensuing program.

The limitations in using psychological assessment for evaluating vocational potential have also been enumerated.

Walker (1957) noted that intelligence tests were limited in their ability to predict how successfully an individual would use his intelligence in a specific situation, since individuals of similar abilities, nevertheless differed in the amount of ability used. Under- and over-achievers are examples of this phenomenon. Fiske (1960) listed brevity of the test instrument as one of the limitations in conventional testing. His contention was that the short period of time taken for testing had a minimum effect on fatigue and declining motivation, factors that were critical for estimating job potential.

Speiser (1967) and Goldman (1961) indicated the limitations imposed on the handicapped population by speeded tests. An additional limitation noted by these authors was that of the characteristic norm population. Typically psychological tests are standardized on the normal population and do not account for physical limitations. Providing time to complete the test beyond that which is prescribed would invalidate the results in relation to published norms; stopping the client at the appropriate time period could in turn produce frustration and would not provide an adequate picture of the client's potential.

In line with limitations imposed by the norm population itself, Neff (1966) further indicated the ephemeral nature of the norm population in a dynamic and changing labor market and labor force.

Sinick (1962) questioned the relationship between psychological testing and the realities of work, and indicated that a specific predictive relationship

between testing and successful employment had not yet been established.

In summary, the psychological assessment approach, although hampered by the aforementioned limitations, has and will continue to serve as one of the basic assessment approaches in vocational evaluation. Although the norms on existing tests have not yet been adequately developed for the handicapped population, a step in this direction would further enhance the value of psychological testing for vocational rehabilitation.

Job Analysis Assessment

The job analysis technique includes an accurate assessment of the job components, including not only the motions involved and the conditions of work, but also the worker characteristics. Neff (1960) reported that this technique developed concomitantly with the psychological assessment approach but in the industrial segment of society, where industrial needs called for a more concrete approach to assessing an individual's job capabilities.

Blum (1956) noted that the job analysis developed along two lines: that of the industrial engineer whose concern was primarily with the task at hand; and that of the industrial psychologist whose concern was the man in the job.

From the task-at-hand aspect Gilbreth and Gilbreth (1917) devised a system of analysis that divided a task into its basic elements of motion, so that any task could be defined in terms of these units or their combinations. The extrapolation of this fractioning concept provided the systematic analysis of all job components including working conditions, skills, and work characteristics.

From the standpoint of man's elemental abilities Fleishman (1967) experimentally isolated and identified eleven psychomotor and nine physical proficiency factors which appeared to account for all the variance in a set of 200 tasks. These psychomotor factors included: control precision, multi-limb coordination,

response orientation, reaction time, speed of arm movement, rate control, manual dexterity, arm-hand steadiness, and wrist-finger speed; the physical proficiency factors included: extent flexibility, dynamic flexibility, static strength, gross body coordination, gross body equilibrium and stamina. By operationally defining these psychomotor and physical proficiency factors a quality and quantity assessment could be performed on the task by means of a job analysis, and the vocational potential of an individual could be predicted on the basis of the degree of correlation between the job factors and man's elemental abilities.

Although the job analysis by itself is only a tool, the extension of the analysis to the individual worker and the ultimate matching of the critical elements between the job and the man provides the ultimate job-man assessment approach.

There is a paucity of research literature on the job analysis approach in vocational rehabilitation. Traditionally, this approach has been an industrial phenomenon, and only in recent years has it found application with the rehabilitation population. One study in rehabilitation reported by Thompson and Pauhle (1963) used the methods-time-measurement approach (MTM)* on job samples drawn from industry. The job samples contained known elemental motions from which a predictive formula was developed that would assess the satisfactoriness of an individual's performance when compared to the performance generally accepted by industry.

In a more basic research study, Chyatte and Birdsong (1967) using

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* The MTM approach, originally developed by Maynard, Sedgemerton and Schwab (1948), defines all production as a function of the methods used. A method is defined to be a sequence of motions performed in a set order. The time to complete any of the motions in the set or sequence is previously established by engineering standards and these pre-determined time intervals by their summation become the basis for computing the time necessary to complete the job.

Motion-Time study are in the process of studying how a person learns to perform a motor act from the point of verbal instruction to the point of systematic performance.

Assets and Limitations of Job Analysis Assessment: Pauhle (1965) noted that the prime advantage of the job analysis approach was that it provided a basic understanding of the job and the man performing it.

Among the disadvantages of job analysis Neff (1966) listed the atomistic error or the overanalysis of the job into component elements and the failure of the approach to recognize human ingenuity.

Pauhle (1965) indicated the job analysis' limited application to manual and physical activities as a disadvantage.

Finally the all-or-none characteristics of a matching procedure fails to provide for compensatory skills or motivation and could possibly preclude a potential area of employment that was based solely on physical factors.

In summary, the job analysis approach, although historically dated with the psychological testing movement, has not developed fully into a vocational assessment approach but remains more a tool of industry. The recent efforts cited for using the job analysis approach with the rehabilitation population have found the support of Blackman and Siperstein (1968) who advocate the use of job analysis for the evaluation of the mentally retarded, in light of the failure of other techniques to provide adequate assessment.

Job Sample Assessment

The job sample technique provides a work situation outside the normal industrial or business setting, including all or part of the operations required by a job, a standardized procedure for administration and scoring, and a

procedure for observing and rating the behavior of the performer (Graves, 1967) and (Thompson, 1960). This approach is an attempt to capitalize on the assets of both the job analysis and the psychological assessment approaches. From psychological assessment, the job sample adapts standardization and statistical rigor; from the job analysis, it derives the critical and detailed analysis.

Although Neff (1966) attributed the systematic development of the job sample largely as a post World War II phenomenon, and primarily in the matrix of the rehabilitation movement, earlier attempts in using job samples are recorded in industry.

Perhaps the first scientific attempt at a job tryout or job replica can be attributed to Munsterberg in the early 1900's. While selecting streetcar operators for the Boston Railway Company, Munsterberg constructed a model streetcar to assess potential candidates (Blum, 1956).

Bellows (1940) described a Metal Filing Worksample that isolated one element of the work performed by a dentist. This job sample correlated .53 with the grades obtained in a course in dentistry.

Melton (1947) and Fleishman (1956) in conducting research on the job sample or job replica for the Air Force reported a series of samples including complex coordination, pursuit confusion, two hand coordination, rudder control test, and a variety of simulator devices. One such simulator provided the potential pilot with a "stick" and "rudder bar" which the candidate manipulated in response to directions indicated by a panel of flashing lights before him. The pattern of responses indicated the would-be-candidate's potential for becoming a pilot. This sample yielded a validity of approximately .40 for predicting pilot success.

The development of job samples as a function of the rehabilitation movement was reported by Graves (1967) to have its origin at the Institute for

the Crippled and Disabled in New York under the TOWER system, an acronym for: Testing, Orientation and Work Evaluation in Rehabilitation. Currently the TOWER has more than 110 job samples expanding over fourteen occupational families including: Clerical, Drafting, Drawing, Electronics Assembly, Jewelry Manufacturing, Leathergoods, Lettering, Machine Shop, Mail Clerk, Optical Mechanics, Pantograph Engraving, Sewing Machine Operation, Welding and Workshop Assembly. These job samples duplicate industrial operations and consist of a series of tests graded in increasing difficulty on which standards of performance have been documented. Scores are based on quality and rate of performance. An overall estimate of client performance indicates the most suitable type of job activity.

The job sample technique has found application in the sheltered workshops. The level of sophistication of most of the samples in the TOWER system, however, created some difficulty for a workshop population. To offset this, Affleck (1967) reported the development of twenty-eight job samples, based on the TOWER system as a prototype, that would be more applicable to a workshop population.

Miller (1968) outlined a complete work evaluation program, which included twenty-three samples derived mainly from the Goodwill Industries programs.

Although various authors reported the development of systems of job samples, the quest for additional job samples and systems continues. In order to reduce the problems encountered in developing job samples and to provide for a systematic procedure in obtaining job samples, Banister and Overs (1964) researched and reported a system for the development of job samples from industry, including procedures for: contacting companies, the job task trait analysis, the writing of job sample task descriptions and instructions and the norming process.

In addition to the programs that had been funded for the development and refinement of job samples, there are an unknown but perhaps significant number of job samples being developed and utilized throughout the many rehabilitation facilities and workshops in the country.

Research literature on the effectiveness of job samples and their predictive validity for training or employment success has, however, been scant and inconclusive. Rosenberg (1967) reported a study in which a sustained effort was made to validate the TOWER system by studying the relationship between TOWER scores and ratings of performance with subsequent job placement. The overall conclusions reached by the author was that the true validity of the TOWER remained unknown. The results of the study indicated:

1. A weak relationship between test scores on the TOWER and performance in a training class,
2. TOWER scores were not related to workshop performance,
3. TOWER scores were not related to subsequent employment,
4. Ratings provided by instructors proved to be better predictors of future employment than the TOWER test scores.

Banister and Overs (1964) reported on a follow-up study of clients who had been tested on job samples. Of the clients tested, three-quarters entered jobs not related to the job sample tasks and of the remaining one-fourth who entered jobs related to the job sample tasks, success in some of these jobs was predicted better by psychological tests.

To what extent are job samples being used in evaluating the vocational potential of rehabilitation clients? Sidwell, Ireland and Koeckert (1961) conducted a study on the use of job samples in hospitals, rehabilitation centers, and workshops. They reported thirty-three percent of the total group surveyed (131 facilities) indicated using job samples. From this group the majority of

the workshops reported at least three-fourths of the total evaluation time was devoted to job sampling; the rehabilitation centers noted the use of job samples for half or less of the total evaluation time; and the hospitals reported using job samples for approximately one-fourth of the total evaluation time. There are no current estimates on the extent of the use of job samples in rehabilitation facilities and workshops.

Assets and Limitations of Job Sample Assessment: Several authors have discussed the advantages, limitations, and disadvantages of the job sample technique. Among the most notable are Neff (1966), Banister and Overs (1964), Sakata and Sinick (1965), and Sinick (1962). The advantages cited by these authors for the job sample technique include: (1) job samples by their very nature approximate their criteria better than the psychological assessment process; (2) the meaningfulness of the concrete tasks tend to reduce motivational problems encountered so often by the abstract content of tests; (3) the job sample provides a more relaxed atmosphere than the typical test situation reducing anxiety and providing a sense of security; (4) job samples yield valuable observational information rather than only the simple quantification of scores; (5) job samples can be used where other methods of assessment are not feasible--for example, where reading levels are low or non-existent and with handicapping conditions such as aphasia or deafness.

Some of the limitations or disadvantages of the job samples include: (1) developing job samples is an expensive and time consuming process; (2) validity for the job sample approach has not been documented; (3) in the constantly changing pattern of the world of work, job samples tend to become obsolete; (4) the assessment of concreteness imposes a limitation in that it is an impossible task to construct samples for all known job areas; (5) clients who are asked to

perform on work tasks resembling jobs they dislike might intentionally perform below their capability; (6) while job samples are more realistic than psychological testing, they nevertheless lack the essentials of the real work setting such as competition, noise and odors.

In summary, the job sample approach has received considerable attention from the standpoint of development but lacks adequate evaluative research and validation. Current information on the job sampling technique for evaluating vocational potential indicates the movement is widespread and receives considerable emphasis in rehabilitation facilitiesand workshops. However, there is little current information on the content of these programs.

Situational Assessment

Chouinard (1959) attributed to Fred Elton the pioneering effort in rehabilitation for the situational assessment technique. Elton's basic assumption was uncomplicated: in order to determine if a disabled painter would be able to continue his job, simply provide him with paint, a brush, a wall to paint, and observe. The resemblance of the situational approach to the job sample approach lies in the attempt to approximate actual working conditions, the difference is in the orientation. While the job sample attempts primarily to tap work skills and physical components, the situational approach places emphasis on the individuals' work behaviors; work tolerances; attitudes toward work, employer, supervisor, co-worker; motivation for work; and reaction to stress and production pressures (Neff, 1966).

Historically, the situational assessment approach to vocational evaluation in rehabilitation received its major impetus through the sheltered workshop movement. Gellman (1961) at the Vocational Adjustment Center of the Chicago Jewish Vocational Services is credited with the introduction of the Vocational

Adjustment Shop. The objectives of the adjustment shop were to increase the handicapped individuals' employability level through the therapeutic use of work. Although the method was designed to aid handicapped clients to overcome psychosocial barriers that prevented them from entering competitive employment, this approach provided in addition a means for assessing the vocational potential of the more severely disabled clients in a more realistic but still highly modifiable work situation. The situational assessment technique is so closely linked with the sheltered workshop that Moed (1960) indicated sheltered workshop work was a method of pre-vocational evaluation.

If the situational assessment approach has been identified primarily with the workshop movement, the extent of this approach can be estimated as a function of the workshops in existence. Lang (1967) indicated there are approximately 1500 workshops throughout the United States and that the movement is expected to double within two years.

Assets and Limitations of Situational Assessment: Fiske (1960) noted that the situational technique provided an individual with a work environment that was as lifelike as possible, and the means for appropriately assessing the individual's work behavior provided the rationale for predicting successful training or employment. Other advantages cited for the situational approach are related to this close approximation to the actual work situation, including: wages, noise, odor, competition with others, industrial schedules and tools.

The disadvantages of the situational approach stem primarily from the application of the theory. Neff (1966) noted the obvious impossibility of replicating in the workshop the variety and levels of employment skills that exist in business and industry. He further commented on the low level type jobs typically being conducted in the workshop such as unskilled assembly, packaging

and elementary operations. Neff again observed that the close approximation of the situational approach to the real working situation created a complicated mass of interrelated variables.

A third significant limitation of the situational approach lies in the method of assessment. Client characteristics and behaviors are typically documented by rating scales and the reliability and validity of these rating instruments have been seriously questioned. Fiske (1960) noted that a foreman's perception of a client's performance was often based upon the foreman's reaction to the client. Miller (1968) indicated that ratings by line foremen were influenced by how well the foremen liked the client, and how well the client was accepted by others. Paulhe (1965) observed that it was difficult to determine whether the rating on a client's interpersonal traits was a rating of the client, the situation, or the rater.

Attempts at establishing the validity of rating scales have not been successful to date. Gellman (1960) reported the construction of a Scale of Employability for Handicapped Persons at the Chicago Jewish Vocational Services. One of the tentative conclusions drawn from research on this scale is that the scale has actual usefulness for prediction on a mass screening level but is not sufficiently discriminative for individual prediction. Both Bitter (1967) and Goldstein (1968) report the development of rating scales but the validity studies have not yet been completed.

In summary, the situational approach used to assess vocational potential focuses primarily upon the work personality of the individual. The theory behind the technique is ingrained in the workshop movement and as such is limited by problems of the workshop and a relatively invalid process of rating the individual's potential. Notwithstanding, the technique provides a more realistic

work setting than the work sample approach.

Job Tryout Assessment

The job tryout technique is perhaps the oldest of the various vocational assessment approaches. The individual is placed into an actual employment situation including: pay on a fixed or variable scale, competition with fellow employees, the construction of a product or a service provided, and the noise, odors, and tools of the occupation. The assessment is for a specific job or job segment and if the individual performs satisfactorily he is typically employed in the same or identical job situation. Although Miller (1968) noted that the job tryout was the least popular method of work evaluation, there is a growing trend as noted within industry to provide a job trial situation prior to any other type of evaluation. Willard (1967) reported that the Inland Steel Container Company hired employees before testing them.

Kludt (1967), Manager of Personnel Development for Hughes Aerospace Company reported training 120 hard-core minority youth referred from social agencies for clerical and electronic assembly jobs disregarding test scores and educational level.

The job-site, a term almost synonymous with the job tryout, has been used by Bitter (1966) to describe an arrangement with cooperative employers to permit clients to work and train at these business or industrial settings for varying periods of time in order to determine specific training objectives.

The shop tryout, reported by Steiner (1967) called for placing a client into a training program for evaluation of vocational potential by the instructor rather than in the actual job situation.

Assets and Limitations of the Job Tryout Assessment: Perhaps the most salient

feature of the job tryout is that it combines the objectives of the work sample and the situational approach into the most realistic work situation possible. The client is exposed to the tools of the trade, the language, the successful employees on whom the standards are based, a realistic wage and a product that, unlike a work sample, remains assembled. The meaningfulness of this experience transcends the typical work sample or situational workshop approach.

The disadvantages of the job tryout approach are primarily linked to time and cost. Unless the initial job tryout is successful, this approach has a tendency to consume considerable time both of the staff and the client. Varying in direct relationship to time is the factor of cost. Job tryouts are typically conducted in the actual industrial or business setting. Overhead, waste, and delays in production lines all contribute to the overall decrease in profit, not to mention the upkeep of the client on the tryout.

In summary, this approach provides the most realistic setting of all the assessment techniques. Although it is limited by time and cost factors, it is gaining prominence as a vocational evaluation technique.

Summary

The various techniques for assessing the vocational potential of rehabilitation clients can be used by any evaluation program, depending on the nature of the clients' handicap and the evaluation objectives.

Vocational assessment by psychological testing has not been successful with the mentally retarded or the socially and culturally deprived. Psychological assessment, nevertheless, finds appropriate application with clients of average or above average intellectual capacity. The situational approach provides specific behavioral information and the job sample approach assesses functional capacity most adequately.

If the objectives are to provide mass screening prior to any extended evaluation, psychological testing is most appropriate. To determine if an individual's work behavior is appropriate or inappropriate, the job sample or situational assessment would be indicated. For the assessment of a specific skill the job sample appears most appropriate. To determine if an individual can function adequately in a specific job situation, the job tryout provides a method of assessment.

Each of these techniques have evolved for the evaluation of an individual's vocational potential because of a specific or general need. Each technique has its advantages, disadvantages and limitations; and none of them can encompass all the problems encountered.

Statement of the Problem

The most effective model or system of vocational assessment using the previously identified approaches or techniques either singly or in combination has yet to be empirically defined. Eventually, an evaluation of the vocational evaluation process will become an essential research undertaking. Prior to any such analysis and evaluation a basic understanding of current practice must be developed. The general question this study was designed to answer was:

> What is the current state of the art in vocational evaluation as defined by the vocational evaluation services being provided in a representative sample of rehabilitation facilities?

Specific Questions to be Answered

In order to identify the services and the patterns of services provided in vocational evaluation the following questions were posed:

1. What are some of the characteristics of rehabilitation

facilities that provide vocational evaluation services?

2. What are the characteristics of the vocational evaluation staff in rehabilitation facilities?
3. What are the characteristics of the vocational evaluation programs with respect to:
   a. the vocational evaluation unit
   b. the vocational evaluation services?
4. What additional services related to vocational evaluation are provided by the rehabilitation facilities?

Scope and Limitations

Vocational assessment cannot be considered an entity but must be thought of as an integral part of the total rehabilitation assessment process. An investigation of this total rehabilitation assessment, however, is beyond the scope of this study. The segment of the rehabilitation process dealing with the methodology and technology of the vocational assessment of the rehabilitation population is here defined as "vocational evaluation," and is the content area for this study.

METHODOLOGY

Type of Study

This study can be best described as a complex sample survey (Cochran, 1963). From a descriptive standpoint the objective was to obtain information about the characteristics of a large group; from an analytic standpoint the objectives were to make comparisons between various subgroups of the population in order to identify the forces at work in the population.

Description of the Population

Caniff (1965) in the Manual of Standards for Rehabilitation Centers and Facilities indicated that at least one full time professionally qualified person should be employed by a facility in a specific area if the facility is to purport offering services in that area. On this basis, only those facilities reporting at least one professional staff member in vocational evaluation were included in this study.

The most recent source of information on rehabilitation facilities is the Directory of Rehabilitation Facilities (1968). This directory contains a listing of 484 rehabilitation facilities in the United States and Canada, including information on: facility emphasis, type of ownership, services offered, patients served and the professional staff. While this represented only those facilities that responded to the Directory questionnaire (1070 were originally contacted), it was the best source available. Of these 484 facilities, 170 indicated having one or more full time professional staff who provided vocational evaluation services. These 170 rehabilitation facilities comprised the population for this study. Included in this population were schools, hospitals, rehabilitation

centers, sheltered workshops and other rehabilitation facilities.

Procedure

The mail questionnaire was the method of survey used in this study. A postcard follow-up was undertaken three weeks after the mailing of the initial questionnaire in order to remind non-respondents. A second postcard follow-up was conducted two weeks after the first follow-up. The original planning in this study was not carried to completion because of the reorganization of the Research and Training Center, and the subsequent curtailment of the project. Not included in the final study was a third follow-up of non-respondents by personal letter and telephone. In addition, a site visit of five responding facilities was planned but not conducted. The purpose of the site visit was to confirm the reliability of the information gathered.

Questionnaire Design and Development

Selection of Variables: As previously indicated, the focus of this study was on the services provided by vocational evaluation programs. In order to identify these characteristic services, the following two types of information were analyzed:

1. The standards and guideline manuals for rehabilitation facilities and evaluation including: the Experimental Evaluative Instrument Based on Standards for Sheltered Workshops, (Thompson, 1960); Standards for Rehabilitation Centers and Facilities, (Caniff, Pomp, and Weiner, 1965); Guidelines for Organization and Operation of Vocational Evaluation Units, (Little, 1966); and Training Guides in Evaluation of Vocational Potential for Vocational Rehabilitation Staff, (Cundiff, Henderson, and Little, 1965).

2. The services reported by a number of vocational evaluation units, including: Minneapolis Rehabilitation Center (Roger Stensland, 1964); a Program for Pre-Vocational Evaluation (Feldman, no date); Woodrow Wilson Rehabilitation Center (Dickerson, no date); Hot Springs Rehabilitation Center (Cundiff, Henderson, and Little, 1965); Oklahoma Vocational Rehabilitation Pre-Vocational Evaluation Unit (Cundiff, Henderson, and Little, 1965); The Vocational Adjustment Center Program (Muthard, 1960); and the Pennsylvania Rehabilitation Center (Steiner, 1967).

On the basis of this information the initial questionnaire on the Patterns of Vocational Evaluation Services was developed. The questionnaire was then pre-tested on five rehabilitation facilities to identify any procedural problems. Finally, the revised questionnaire was submitted to a Vocational Evaluation Task Force for evaluation. The recommendations of the Task Force were incorporated into the final questionnaire (see Appendix A).

To enhance the return of the questionnaire, the aid of the Executive Directors of the Association of Rehabilitation Center, Inc., the National Association of Sheltered Workshops, and the National Rehabilitation Association were solicited in the form of a cover letter (see Appendix B) which encouraged the agency directors to participate in the study. The questionnaire and cover letter were mailed directly to the administrators or directors of the previously identified population. The facility administrator was asked to complete a few initial questions. A request was made that the remainder of the questionnaire be completed by the supervisor of the vocational evaluation unit.

RESULTS AND DISCUSSION

Questionnaire Return

One-hundred and thirteen questionnaires were returned from the original 170 mailed. Six of the returned questionnaires were only partially completed. These were accompanied by a note indicating that the questionnaire was not appropriate for the respective program or that the program was too new to provide adequate information. One respondent returned an incompleted questionnaire with a note indicating insufficient time. Another questionnaire, purportedly completed, was lost in the mail.

The incomplete questionnaires and the questionnaire lost in the mail were not included in the return statistics. Because of the curtailment of the study a cutoff date was established for accepting returned questionnaires for analysis. As of the cutoff date, fifty-five of those originally contacted did not respond in any form. On this basis, 66 percent of the questionnaires were returned and used in the analysis.

Format for Analysis

In addition to the compilation of means, standard deviations, maximum and minimum scores for all continuous data, frequencies and percents were computed for all categorical data. The respective computer programs for this analysis were BMD 01D Simple Data Description, and BMD 04D Alphanumeric Frequency Count, version of May 1964, Health Sciences Computer Facility, University of California, Los Angeles. All of the computations were performed by the 7090 computer at the University of Pittsburgh.

Variables Analyzed

Initially, the analysis was performed on the responses of the total population. Additionally, analyses were performed on the responses of the sub-populations for specified criterion variables. The criterion variables selected for this study were:

1. The primary emphasis of the facility
2. The type of ownership of the facility
3. The geographic location of the facility
4. The type of handicapping conditions served by the facility
5. The relationship of the size of the full-time staff to the vocational evaluation staff.

The respondents who indicated a particular classification on a criterion variable were pooled and analyzed as a sub-population. For example, with respect to the criterion variable "type of facility", those facilities who were classified as "voluntary non-profit" were separately analyzed with respect to all responses. Likewise, those facilities classified as "governmental" were analyzed separately from the "voluntary non-profit agencies." The purpose of the sub-population analyses was to show characteristic similarities or differences in the patterns of vocational evaluation services across these criterion variables, so that rehabilitation facility representatives who could specifically identify their status with respect to a criterion variable might be made aware of what other facilities who had an identical classification status were doing. Additionally, comparisons could be made with the total responding population.

Limitations

Two cautions must be made with respect to the interpretation of the findings.

The breakdown into sub-populations reduced the number of observed cases for any specific analysis. Although the majority of sub-populations had a respectable number of respondents included, several sub-populations were represented by a small number of respondents. Whenever possible, the categories on the criterion variables were collapsed so as to increase the number of respondents for a particular analysis. In no case, however, was an analysis conducted on a category of less than nine respondents. Interpretation of the findings for the less represented populations must be made with extreme caution.

The most serious caution for interpretation rests in the use of the data. This was a purely descriptive study. The findings that certain types of facilities provide characteristic vocational evaluation services do not endorse these services as the most appropriate. The findings subsequently reported are not a set of standards that should be adopted merely because they represent what others are doing. Hopefully they should serve as a source of information to those facilities who already have an established program for vocational evaluation and to those facilities who anticipate establishing vocational evaluation services.

Findings

In order to facilitate a translation of the findings, the following alphabetic coding system has been adopted to identify the appropriate sub-populations for the criterion variables:

Primary Emphasis of Facility

A--Physical Restoration
B--Social and Behavioral Adjustment
C--Vocational Adjustment

Type of Facility

D--Voluntary Non-profit
E--Governmental

Geographic Location

F--Regions 1 and 2
G--Regions 3 and 4
H--Regions 5 and 6
I--Regions 7, 8, and 9

Relationship of Total Professional Staff to Vocational Evaluation Staff

J--Total Staff Between 1 and 20; Vocational Evaluation Staff Between 1 and 4.
K--Total Staff Between 1 and 20; Vocational Evaluation Staff Between 5 and 10.
L--Total Staff Between 21 and 60; Vocational Evaluation Staff Between 1 and 4.
M--Total Staff Between 21 and 60; Vocational Evaluation Staff Between 5 and 10.
N--Total Staff Between 21 and 60; Vocational Evaluation Staff of 11 or More.
O--Total Staff of 61 or More; Vocational Evaluation Staff Between 5 and 10.

Handicapping Conditions Served

P--Most Frequently Reported Handicapping Condition Served: Intellectual.
Q--Second Most Frequently Reported Handicapping Condition Served: Psychological.

Some of the Characteristics of Rehabilitation Facilities that Provide Vocational Evaluation Services

Table I* presents the percentage breakdowns for the responses to the categorical data and Table II presents the means for the continuous data with respect to characteristics of rehabilitation facilities that provide vocational evaluation services. The data is presented in a continuous format so that more than one variable is represented per table. The description of the variables is presented in abbreviated form. For a more completed description of these variables see the questionnaire, Appendix A. All percents have been rounded to 2 decimal places, and all numerical data on the continuous variables have been rounded to 1 decimal place. On dichotomous yes-no questions, the yes response has been recorded. Because of the curtailment of the study and the time set for completion, no statistical comparisons of means or percents were performed.

Emphasis of Facility: Sixty-three percent of the total respondents indicated Vocational Adjustment, 26 percent indicated Physical Restoration and 9 percent

* All Tables are found at end of chapter.

Indicated Social and Behavioral Adjustment as the primary emphasis of their facilities.

An analysis of these responses across the sub-populations revealed only small differences with respect to type of facility. Regions I and II had a tendency to be more evenly distributed between a Physical Restoration and Vocational Adjustment emphasis; and Regions V and VI reported a proportionately higher percentage for a Vocational Adjustment emphasis (82 percent) than the overall average of 63 percent.

With respect to the relationship of total professional staff to vocational evaluation staff a trend was noted. The larger the ratio of total staff to vocational evaluation staff, the greater the emphasis reported on Physical Restoration. Increases in the Social and Behavioral Adjustment emphasis occurred primarily with governmental facilities and facilities that had a total staff population of 61 or more. Those facilities reporting an intellectual handicapping condition as the most prevalent condition served, reported Vocational Adjustment as their prime emphasis more frequently (81 percent) than the average of the total group.

Types of Services Provided: With respect to Physical Restorational services, approximately one-half of the total respondents indicated physical therapy, occupational therapy, physical medicine and rehabilitation, and recreation therapy as part of their program. Approximately one-fourth included speech and hearing therapy as part of the services provided.

A higher percentage of the governmental facilities reported more physical restoration services than did the voluntary non-profit agencies. Only slight variations in physical restoration services were reported across the various regions. The larger the ratio of total staff to vocational evaluation staff,

the more physical restoration services were reported. Those facilities indicating an intellectual handicapping condition as the most prevalent served, reported a smaller percentage of physical restoration services than the average of the total group. Facilities reporting a psychological handicapping condition differed only slightly from the overall responses regarding physical restoration services.

With respect to Social and Behavioral Adjustments services provided, more than 85 percent of the respondents indicated the provision of psychological and social services, and personal adjustment counseling; sixty-two percent of the respondents indicated using a sheltered workshop. The response to psychological and social services and personal adjustment counseling was quite stable and consistent across the sub-populations. The use of a sheltered workshop, however, was reported less frequently with governmental facilities, in regions VII, VIII and IX, and in facilities that indicated a relatively higher ratio of total professional staff to vocational evaluation staff.

With respect to Vocational Adjustment services, 95 percent of the total respondents indicated vocational counseling, 97 percent indicated vocational evaluation, 87 percent indicated work adjustment services, 48 percent reported academic training, 44 percent reported technical training, and 66 percent indicated sheltered workshop services. In general, the services of vocational counseling, vocational evaluation and work adjustment maintained an equal distribution across the sub-populations, but academic and technical training was found less frequently provided in voluntary non-profit facilities and more frequently provided in governmental facilities and facilities that served basically an intellectual handicapping condition.

Type of Facility: Seventy-one percent of the total population classified themselves as voluntary non-profit and 29 percent indicated governmental. With

respect to the primary emphasis of the facility this ratio was reversed by those facilities indicating a Social and Behavioral Adjustment emphasis. Forty percent were classified as voluntary non-profit and 60 percent as governmental. Typically Regions III through IX reported more governmental and fewer voluntary non-profit facilities. Facilities reporting a small total staff (less than 20) characteristically tended to be voluntary non-profit agencies. As the size of the total staff increased, the facilities progressively reported themselves more as governmental.

Geographic Location: Twenty-eight percent of the respondents came from Region II and 22 percent came from Region V. Regions I and III each accounted for 7 percent of the respondents; Regions VI and VII each accounted for 9 percent of the respondents; Region IV accounted for 8 percent, Region IX for 6 percent, and Region VIII for 2 percent of the respondents. Since Regions II and V constitute 50 percent of the respondents, the variance across the sub-variables would be characteristically represented by these regions.

With respect to the sub-populations it should be noted that Region II represented the most frequent response for a physical restoration emphasis while Region V represented the most frequent response for a vocational adjustment emphasis.

Staffing Patterns: Twenty-seven percent of the respondents reported a total staff between 1 and 20, and a vocational evaluation staff between 1 and 4. The next most frequent staffing pattern reported (21 percent) was a total staff between 21 and 60 and a vocational evaluation staff between 5 and 10. Twelve percent reported a total staff between 21 and 60 and a vocational evaluation staff between 1 and 4. Facilities with a total staff of 1 to 20 and 61 or

more each with a vocational evaluation staff of 5 to 10, each account for 10 percent of the distribution. Facilities with a total staff of 21 to 60 and 61 or more, each with a vocational evaluation staff of 11 or more accounted for respectively 8 percent and 7 percent of the respondents.

Physical restoration facilities were most frequently represented by a vocational evaluation staff of 1 to 4. Facilities with an emphasis on social and behavioral adjustment characteristically reported vocational evaluation staffs of 5 to 10, and 11 or more. It should be noted that facilities with an emphasis on social and behavioral adjustment also reported larger total staffs.

With respect to type of facility only 6 percent of the voluntary non-profit facilities reported vocational evaluation staffs of more than 11, while 42 percent of the governmental facilities reported 11 or more vocational evaluation staff.

Total Number of Professional Staff: The mean number of total professional staff was 42, however, the variation among the sub-populations was significant. Those reporting a physical restoration emphasis had a mean staff of 45; those reporting social and behavior adjustment had a mean staff of 110; and those reporting vocational adjustment had a mean staff of 31. Voluntary non-profit facilities reported a mean staff of 27 and the governmental facilities reported a mean of 79 total staff.

Regions V and VI characteristically reported a mean total staff (29) below the mean for the total population (42).

Characteristics of the Vocational Evaluation Staff and the Vocational Evaluation Program

Table III presents the means for the continuous data and Table IV presents a percentage breakdown for the responses regarding the vocational evaluation

staff and the vocational evaluation program.

Vocational Evaluation Staff: The mean number of vocational evaluation staff reported was slightly more than 6. On the average facilities with an emphasis on social and behavioral adjustment employed 8.8 evaluators; facilities with an emphasis on vocational adjustment employed 6.8 vocational evaluators; and facilities with a physical restoration emphasis employed 4 vocational evaluators. Governmental facilities employed 9 vocational evaluators when compared to the 4.9 evaluators per voluntary non-profit facilities. However, when a ratio of evaluation staff to full-time staff was established across the variables, facilities with a vocational adjustment emphasis and voluntary non-profit facilities carried a higher vocational evaluator to staff ratio than the other reported facilities.

Facilities in Regions V and VI also displayed a higher ratio of vocational evaluators to total staff ratio than did the facilities in other regions.

Educational Attainment of Vocational Evaluation Staff by Mean Number of Staff: The overall findings indicate that approximately 75 percent of the vocational evaluators employed have either a bachelors or a masters degree. Interpretation of these findings across the sub-populations can be misleading, in that each sub-population is represented by a different mean number of vocational evaluators.

Educational Backgrounds of the Vocational Evaluation Staff: Educational backgrounds for the vocational evaluators appeared to be equally distributed basically among Rehabilitation Counseling, Psychology, Teaching and Industrial Arts followed in part by Occupational Therapy and Sociology. Vocational Evaluation and Personnel did not contribute significantly as educational backgrounds for vocational evaluators.

Areas of Training or Experience Considered Most Appropriate for Vocational Evaluators: A mean rank of the training or experience considered most appropriate by the respondents for vocational evaluators yielded the following hierarchy: Vocational Evaluation, Rehabilitation Counseling, Psychology, Industrial Arts, work experience, Teaching, Occupational Therapy, Personnel, Social Work, School Counseling and Sociology.

Previous Work Experience of Vocational Evaluation Staff: No characteristic trend in the amount of previous work experience was noted for the vocational evaluators. The time intervals appeared equally distributed from no work experience to eight years of work experience and then gradually tapered to twenty years of experience.

Handicapping Conditions Served in Vocational Evaluation: The intellectual handicapping condition was the most prevalent with a mean of 31 percent, followed by the psychological and physical handicapping conditions each with a mean of 24 percent. The social and sensory handicapping conditions each accounted for 7 percent, and the vocational handicapping condition accounted for 6 percent of the variance.

Percentage of Client Evaluations Completed in Specified Time Intervals: An analysis of the time needed to complete client evaluations for the total sample revealed that 34 percent of the clients were evaluated within the 3 to 5 week interval and 22 percent were evaluated in the time interval between 6 to 8 weeks. Only 11 percent of the clients were reported to be evaluated in less than 2 weeks. The time intervals between 9 and 11 weeks, and 12 and 14 weeks each accounted for another 6 percent of the evaluations. The time intervals between 15 and 17 weeks, and 18 to 20 weeks each accounted for 4 percent of the client

evaluations. The period of time beyond 20 weeks accounted for the remaining 13 percent of the client evaluations.

With respect to Facility Emphasis, the facilities with a Physical Restoration emphasis reported the shorter time intervals needed for evaluation while the facilities reporting a Social and Behavioral Adjustment emphasis indicated that 50 percent of their clients required 20 weeks or more for evaluation.

With respect to Type of Facility, the governmental facilities reported longer periods of time for evaluation than did voluntary non-profit agencies.

Only slight variations in time for evaluation were observed with respect to the regions or the two handicapping conditions served.

Analysis of Client Distribution Following Vocational Evaluation: The total response indicated that 23 percent of the clients went into work adjustment following vocational evaluation, 20 percent went into training, 16 percent went into a transitional workshop, 12 percent went into direct placement, 10 percent were not found feasible for further vocational exploration, 7 percent went into on-the-job training and 7 percent went into a terminal workshop. A higher than average proportion of the clients from governmental facilities (30 percent), from regions III and IV (39 percent), and from facilities that had a total staff between 21 and 60 and an evaluation staff of 11 or more (36 percent) went into vocational training programs after evaluation.

With respect to Emphasis of the Facility, those reporting Physical Restoration utilized direct placement and training most frequently after evaluation; those reporting Social and Behavioral Adjustment utilized workshops most frequently after evaluation; and those reporting Vocational Adjustment utilized work adjustment and training most frequently after evaluation.

Voluntary non-profit facilities relied more on work adjustment and the workshop, and the governmental facilities relied more on training and work adjustment after vocational evaluation. Only slight variations were observed in the typical services provided after evaluation between those facilities reporting intellectual and psychological handicapping conditions.

Established Philosophy and Objectives for the Vocational Evaluation Program: Four percent of the total population reported no established philosophy and objectives, 39 percent indicated an informally established philosophy and objectives, 34 percent reported a written philosophy and objectives, and 22 percent indicated the philosophy and objectives were available for distribution.

Regions V and VI and those facilities with a total staff between 21 and 60 and a vocational evaluation staff of more than 11 reported their philosophy and objectives written and available for distribution more frequently.

Vocational Evaluation Time Interval: Approximately one-half of the respondents indicated a fixed time interval for vocational evaluation (e.g. 10 week program) and the remaining half indicated an open-ended interval. The most significant variations from this ratio were reported by facilities with a Social and Behavioral Adjustment emphasis (100 percent open-ended), Governmental facilities (74 percent open-ended), and facilities with a total staff of more than 60 and a vocational evaluation staff between 5 and 10 (82 percent open-ended).

Most Frequent Time Interval Reported for Vocational Evaluations: For the total respondents a 3 to 5 week period was the most frequently reported (38 percent), followed by the 6 to 8 week period (22 percent). The next most frequent time period was that of more than 20 weeks (15 percent). The remaining time intervals were relatively equally distributed.

Actual Active Caseload for Evaluators: Twenty-one percent of the respondents indicated an average active caseload of 5 to 6 clients per evaluator, 17 percent reported 3 to 4 clients, 14 percent reported 7 to 8 clients, and 12 percent reported 9 to 10 clients per evaluator. The remainder appeared equally distributed among the alternatives of less than 2 clients, 11 to 12 clients, 13 to 14 clients, 15 to 18 clients and more than 18 clients.

Typically facilities with a physical restoration emphasis reported smaller active caseloads, and facilities with a social and behavioral adjustment emphasis reported larger active caseloads per evaluator.

Average Number of Evaluations Completed Per Month by Unit: Twenty-seven percent of the respondents indicated their evaluation program completed 1 to 5 evaluations per month, 18 percent reported 6 to 10 per month, 12 percent indicated 11 to 15 per month, 8 percent indicated 16 to 20 per month, 10 percent indicated 21 to 25 per month, 6 percent reported 26 to 30 per month, 5 percent reported 31 to 40 per month, and 9 percent reported 41 or more client evaluations per month.

Facilities with a physical restoration emphasis characteristically reported between 1 and 10 evaluations per month. Facilities with a social and behavioral adjustment emphasis reported at both ends of the distribution, from 1 to 10 and more than 50 clients evaluated per month. Facilities with a vocational adjustment emphasis were more closely aligned to the overall distribution.

Voluntary non-profit facilities most frequently reported between 1 and 15 evaluations per month while governmental facilities were continuously distributed over the range from 1 to 5, to more than 50 client evaluations per month. Again, the larger vocational evaluation staff for governmental facilities might have contributed to a larger total number of evaluations per facility. Facilities in Regions I and II tended to report fewer client evaluations than facilities

in the remaining regions.

Characteristics of the Vocational Evaluation Services Provided

Table V presents a percentage breakdown for the responses to the categorical data regarding the vocational evaluation services provided.

Physical Capacity Analysis: Twenty-five percent of the facilities reported this service was typically not provided. Fifty-three percent indicated the service was typically provided within the facility. The remaining 20 percent reported the service provided outside the facility or in combination with the facility. Facilities with a physical restoration emphasis reported this service most frequently (89 percent).

Psychological Testing: Seven percent of the facilities reported that psychological testing was not provided. Fifty-six percent indicated this service typically provided within the facility. Twelve percent reported the service provided outside the facility and 25 percent indicate the service provided both within and outside the facility.

Areas of Psychological Testing Provided: General ability or intelligence testing was the most frequently reported type of psychological testing (93 percent). Seventy-nine percent reported aptitude testing, 77 percent reported dexterity and performance testing, and 72 percent reported vocational interest surveying.

Average Time Per Client Spent on Psychological Testing: Thirty-five percent of the respondents indicate a 1 to 3 hour interval and another 35 percent reported a 4 to 6 hour interval for psychological testing. Seven percent of the respondents reported 7 to 9 hours and 7 percent reported 10 to 12 hours. A total of 7 percent indicated using 13 or more hours for psychological testing.

Voluntary non-profit facilities more frequently reported the 1 to 3 hour interval and governmental facilities more frequently reported the 4 to 6 hour interval.

Behavioral Assessment: Twelve percent of the facilities reported they typically did not provide behavioral assessment. Fifty-four percent indicated that behavioral assessment was a service provided within the facility, 10 percent indicated this service provided outside the facility, and 24 percent indicated this service was provided both within and outside the facility.

Job Analysis: Thirty percent of the facilities reported that job analysis was typically not provided. Fifty-two percent reported this service typically provided within the facility, 3 percent indicated this service provided outside the facility, and 13 percent reported this service was provided both within and outside the facility.

Time Spent on Job Analysis: Twenty-two percent of the respondents indicated no time spent on job analysis, 25 percent reported spending less than 2 hours and 19 percent reported spending between 3 to 6 hours on job analysis. A total of 10 percent reported between 7 and 14 hours, 8 percent reported between 15 and 22 hours, and 12 percent indicated more than 19 hours spent on job analysis.

Job Sample: Seventeen percent of the total respondents reported that the job sample was typically not provided. Seventy-five percent reported the job sample typically provided in the facility and 7 percent reported that the job sample was provided both within or outside the facility. The high proportion

of job sampling reported within the facility was consistent across the sub-populations.

Time Spent on the Job Sample: The distribution for time spent on the job sample ranged in intervals from less than 2 hours to more than 30 hours. Forty-one percent reported more than 30 hours, and 14 percent reported between 23 to 30 hours spent on the job sample per client. The remainder was distributed evenly between less than 2 hours and 19 to 22 hours.

Number of Job Samples Used: The distribution for number of job samples used ranged from less than 5 to over 50 and no specific trend was observed in the total distribution. Eighteen percent of the respondents indicated using more than 50 job samples, 17 percent indicated using 6 to 10, 13 percent reported using 11 to 15, 9 percent each reported using 16 to 20 and 31 to 50 job samples. Seven percent reported using 21 to 25 job samples, 6 percent indicated 26 to 30 and 5 percent reported using less than 5 job samples.

Job Tryout: Twenty-two percent reported the job tryout was typically not provided and 57 percent indicated the job tryout typically provided within the facility. Five percent reported the job tryout used outside the facility and 16 percent indicated the job tryout used both within and outside the facility.

Facilities in Regions VII, VIII and IX tended to use the job tryout more frequently than facilities from other regions.

Where Job Tryout is Used: The service area was the most frequently reported area for using the job tryout (60 percent). Forty-nine percent of the facilities indicated using the job tryout in vocational training areas; 36 percent indicated using the job tryout in industry or business; and 27 percent reported using the job tryout in other facilities.

Time Spent on Job Tryout: The distribution of the time spent on job tryouts ranged from less than one day to more than 20 days. The most frequently reported time interval was more than 20 days (25 percent). Fourteen percent reported 5 to 7 days, and 10 percent indicated less than 5 days spent on the job tryout. The intervals of 8 to 10 days, 14 to 16 days and 17 to 20 days each accounted for approximately 10 percent of the respondents.

Situational Approach: Twenty-one percent reported that situational assessment was not typically provided. Seventy percent indicated this service was provided within the facility. The remaining 8 percent provided the service both within and outside the facility.

Time Spent on the Situational Approach: Thirty-five percent reported the 2 to 4 week period as the most frequent time interval for situational assessment, and 12 percent reported less than one week as the next most frequent time interval. The period of 5 to 7 weeks accounted for 10 percent of the respondents. The remainder of the distribution was equally distributed: 8 to 10 weeks, 4 percent; 11 to 13 weeks, 5 percent; 14 to 16 weeks, 3 percent; 17 to 19 weeks, 1 percent; 20 to 30 weeks, 5 percent; more than 30 weeks, 5 percent.

Facilities with a physical restoration emphasis were least represented by this approach; fifty percent of them reported no situational assessment. Conversely the facilities with an emphasis on social and behavioral adjustment were most frequently represented in the longer time intervals. Fifty percent of these indicated a total of 17 or more weeks spent on situational assessment.

Rank of Evaluation Approaches Considered Most Useful: An overall rank of the five previously described evaluation approaches or techniques yielded the following hierarchy as a function of the highest mean percentage attributed

to a number 1 rank: Job sample (26 percent), Situational approach (24 percent), Job tryout (20 percent), Psychological testing (18 percent) and Job analysis (1 percent). The order of the hierarchy was not changed when the highest two ranks for each category were combined. As a function of the sub-populations, however, this hierarchy did not remain constant. Facilities with a physical restoration emphasis reported the following order of preference: Job sample (25 percent), Job tryout (25 percent), Psychological testing (18 percent), Situational assessment (14 percent) and Job analysis (0 percent). Facilities with a social and behavioral adjustment emphasis reported the following order: Situational assessment (60 percent), Psychological testing (20 percent), Job tryout (10 percent), Job sample (0 percent) and Job analysis (0 percent). Facilities with a vocational adjustment emphasis reported in order: Job sample (31 percent), Situational assessment (24 percent), Psychological testing (18 percent), Job tryout (16 percent) and Job analysis (0 percent).

Voluntary non-profit facilities reported the following order: Situational assessment (27 percent), Job sample (27 percent), Job tryout (17 percent), Psychological testing (17 percent), and Job analysis (0 percent). Governmental facilities reported the following hierarchy: Job tryout (26 percent), Job sample (23 percent), Psychological testing (19 percent), Situational assessment (16 percent), and Job analysis (3 percent).

Follow-up After Vocational Evaluation: Sixty-five percent of the respondents indicated that they conducted a follow-up of clients who had been evaluated. In general this ratio remained constant across the sub-populations.

Characteristics of the Work Adjustment Program: Table VI presents the percentage breakdown for the responses to the categorical data regarding work adjustment.

Work Adjustment: Nine percent indicated work adjustment was typically not provided in their facilities. Seventy-eight percent reported work adjustment provided within the facility and 10 percent indicated a combination of in and out of facility work adjustment services.

Where Work Adjustment is Provided: The training area was the most frequent locus cited for providing work adjustment (71 percent), followed by counseling (70 percent), workshop (67 percent), evaluation (48 percent), outside the facility (34 percent), occupational therapy (21 percent) and no service provided (11 percent).

Analysis of the Open-ended Questions

The questionnaire was highly structured. The majority of responses required little more than a check mark on some list of alternatives. In order to provide some opportunity for the respondents to elaborate on their respective programs, the final three questions were open-ended. In general these questions sought information on changes in the vocational evaluation programs, descriptions of research or outcome in vocational evaluation, and additional information not covered by the questionnaire that the respondents felt was needed for a better understanding of the vocational evaluation process.

The first of these questions was:

> Has your approach to vocational evaluation changed significantly within the past year? (Significant change includes serving a different population of clients, a change in techniques or services provided or a change in objectives.)...If yes, please describe briefly how your program changed from the old to the new.

Fifty percent of the respondents reported a significant change in their programs. While a number of the changes noted were specifically related to a facility, e.g., a shift from services solely for in-patient clients to additional

services for out-patient clients, a trend was observed in the overall responses. The change most frequently referred to was a shift in the nature of the handicapping conditions served. Noted specifically was an increase in the services provided to the "severely handicapped," the "multiply handicapped," the "hard-core unemployed," "drug addict," the "culturally disadvantaged," "welfare recipients," and "public school children from cooperative work-study programs or special classes." Additional references were made to a change from a program that served only specific handicapping conditions to a program that encompassed a broader range of handicapping conditions. Concomitant with the change in the typical population served was the expressed concern and need for new programs and procedures in order to more effectively provide appropriate rehabilitation services. The following is a list of programs or procedures indicated by the respondents in their attempt to provide services for this changing rehabilitation population:

Increased staff to client ratio

More counseling and small group programs

More and sooner emphasis on work adjustment

Increased use of motivation and behavior modification techniques

Increased follow-up and supportive services

More intensive individual work to assess strengths and limitations

Longer duration needed for evaluation

Change in staff attitudes to deal with new population

Remedial academic programs (budgeting, grooming, credit purchasing, etc.)

More use of social workers

In addition to the programs or procedures noted specifically by the respondents that would help to better serve the changing population, several

general trends were noted in the overall responses. A growth process was observed in the use of vocational evaluation approaches or techniques. In general, facilities that had been using one or two assessment approaches were exploring or using additional approaches. For example, one facility that had focused on the situational approach added psychological testing and job-samples; another facility that had focused on psychological testing incorporated job-samples into its program.

In line with this general expansion trend a movement was noted toward more use of the job tryout approach and the integration of evaluation areas into production areas. One facility reported the development of a training services program which provided skilled and semi-skilled training in a variety of areas. The program led to a decrease in the use of job samples and an increase in the use of tryouts, and reported a better overall effectiveness.

An analysis of the responses to this question would indicate that the vocational evaluation programs are receiving new types of handicapping conditions; there is concern about the traditional evaluation methodology for this population; and there are attempts being made to employ or devise additional programs of services for the changing population.

The second open-ended question was:

> Do you have a staff member, full or part time, involved in development, modification or analysis of evaluation techniques?...If yes, please describe briefly the purpose of the research and whatever outcomes are available.

While thirty-five percent of the respondents indicated that they had a staff member involved in research, only a few of the respondents reported outcomes.

An analysis of the descriptive section revealed that the majority of the facilities utilized a vocational evaluation staff member on a part time basis in the development, modification or analysis of evaluation techniques. Where an

independent research staff was available, the research member served as a facilitator and advisor for research in the evaluation unit and as a liaison between outside agencies and the various departments within the facility.

Approximately 25 percent of those indicating ongoing research reported relatively new programs with no outcomes available. Of those reporting specific areas of research, four indicated the development of new job or work samples from industry in the community; two indicated studies on the validation of job samples; four indicated establishing norms for the assessment techniques; one reported the development of a program of teaching aids, including programmed learning, film, video, etc. to teach job performance and to gain insight into work adjustment; one indicated the development of a vocational adjustment scale, a hospital industrial program and research in behavior modification; one reported research on determining the effectiveness of short concept films for the instruction of handicapped students. The remaining respondents provided a generic description of their research efforts, such as: evaluating existing programs of services. One specific outcome was reported: the situational evaluation appeared more suitable than the job samples. However, no indication was made to the nature of the job samples or the population parameters.

Several of the respondents confirmed the need for research and development in vocational evaluation, but further noted the prohibitive costs of research in service oriented facilities.

The third open-ended question was:

> Are there any additional questions you feel might be appropriate in order to get a better understanding of the vocational evaluation process?

Approximately twenty-five percent of the respondents took the opportunity to react to this question.

Several recommendations were made regarding the questionnaire itself. One respondent indicated the questionnaire did not completely describe the vocational evaluation in a sheltered workshop where the client was employed and paid on a price rate basis.

There was some concern on our part on the length of the questionnaire (16 pages). However, only one respondent reported that the questionnaire was too long to be effective.

A summarization of the responses provided to this question would significantly reduce the feelings and meanings of the respondents. For this reason the responses have been reproduced verbatim, without reference to origin. These are the needs reflected by the basic service providers, and perhaps they will generate some additional researchable questions.

> Questions regarding the size (physical plant) of the overall facility and of the vocational evaluation unit should be included.
>
> Question regarding the number of rehabilitation counselors for whom we provide client evaluations.
>
> Question regarding recreation for our clients.
>
> Scope of the survey did not include auxiliary services, e.g., optical aid clinic, cardiac work classification unit, outpatient services such as dental, GED testing, psychological testing.
>
> Survey does not include any aspects of how a workshop and a rehabilitation center coordinate services when located within the same facility and under the same administration.
>
> Relationship of evaluation to the counseling process. How is evaluation used? Who transmits information to clients? Who is responsible for the development of a vocational plan?
>
> Salaries-qualification of personnel in more depth.
>
> I would like to see some feedback from outside employment (e.g., industry, etc.) relevant to predictions made in the work evaluation process.
>
> In the case of work adjustment clients having experienced evaluation; test-retest might make for interesting data.

Also, I'd want to know the percentage of evaluators who engage in professional activity outside of their jobs (e.g., professional asso., etc.)

The mutual exchange of professional experiences can often bring about modifications in practice and thinking.

How valid and what role, if any, does a time and motion study play in evaluation?

We are anxious to learn how much staffing you feel is necessary for a successful evaluation program, keeping in mind economic limitations. We would also like to know what other facilities have done, especially in the sheltered workshop field, to upgrade their evaluation programs.

You might inquire about present educational and skill levels of clients, about what sort of placement is found most effective and what sort of employers or approach to them is most receptive.

Questions reflecting in-service training techniques used for increasing diagnostic evaluation skills of non-professional staff within facility.

Would like to know about "favorite tests" employed by evaluators who believe a particular test or technique has good predictive value for specific occupational areas or job goals.

Is there a more or less optimal time duration in which a comprehensive evaluation is completed-re: formal work samples-does one compulsively follow a standardized procedure of X no. of hours of testing (as we often do with psychometric testing) or can we make a determination in a much shorter period of time?

Information gained through a questionnaire such as this may become more meaningful if a direct question were asked as to what part the evaluation unit played in the Rehabilitation Unit of each facility?

Regular seminars in evaluation philosophy and technique should be arranged. Where and when and by whom can these be developed?

Why don't existing evaluation programs share ideas, methodologies, techniques, etc. through some recognized central distribution center?

What feedback is available to indicate the value of evaluations done by different methods?

How are case conferences used to relay and consolidate Work Evaluation findings? How do conferences promote planning?

You could have asked more about how written reports are made. This might lead to greater standardization and reporting around the country.

How are agencies preparing evaluation data for inclusion in IBM computer application. (a la Dr. Pahle at Stanford) Our hope is to gradually develop the capacity to store information as a client goes through work evaluation then get a "print-out" at the end to be amended by the evaluator at the conclusion of the conference and the client's stay. An application for a grant to do this was turned down but someone else may be able to work it out.

What new innovations do evaluation departments foresee in the coming years?

How are evaluation departments preparing for implementing Title 15 when it is funded? How do we do work evaluation in the ghetto where "instant" delivery is needed?

As with any forced choice survey, particularly ones concerned with the amorphous terms and approaches used in rehabilitation facilities, biases are built in which often distort the validity of responses. Perhaps space could be provided after each question to allow the respondent to qualify his answers if for no other reason than to justify such answers in the mind of the respondent.

What are the stages or steps in evaluation? An initial evaluation for developing "work potential profile"? An extended evaluation for assessing progress in modifying profile and bringing clients to employability through work adjustment, etc.?

What are the factors that militate against employability of clients at time of referral? (Categories in Question 6 have semi significance, but usually are not the real problems around which evaluation and other services are developed.)

Under what conditions does each type of vocational evaluation represent the "best fit"? Are there desirable sequences in which combinations of these approaches should be used?

If we accept the premise that "evaluation is a continuing process", (a) How do we distinguish steps or phases as in #1 above?, (b) In what ways does focus or emphasis change in each phase?

What is the rationale underlying each type of evaluation? What kinds of information does each type provide?

The concept of matching personal abilities with job requirements is well accepted. Yet many rehab clients-low academic achievement, poorly developed emotions and attitudes, etc.-need special environmental conditions to function effectively on jobs. The judgment is frequently made that the kind of work the person does is not nearly so important as the company he works for and the supervisor he works under. Would like to see more information developed on emphasis of job milieu requirements as part of vocational evaluation.

No more questions, but man it would sure be great to get some <u>answers</u>!

TABLE I

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Number of Respondents	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34
Percent Responding	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
EMPHASIS OF FACILITY																		
Physical Restoration	26				25	29	42	29	6	28	21	18	77	14	0	64	10	26
Social and Behavioral Adjustment	9				5	19	11	5	9	11	7	0	0	5	0	18	7	3
Vocational Adjustment	63				67	52	45	65	82	61	67	82	15	82	100	18	81	68
No Response	2				3	0	3	0	3	0	4	0	8	0	0	0	2	3
TYPES OF SERVICES PROVIDED																		
Physical Restoration																		
Physical Therapy	54	100	40	37	47	71	61	65	47	44	24	17	100	59	33	91	39	53
Occupational Therapy	54	100	60	33	49	68	63	59	41	56	38	17	92	50	22	91	39	50
Physical Medicine and Rehabilitation	50	93	60	30	41	74	58	53	38	56	24	17	99	45	44	91	29	47
Recreation Therapy	45	50	70	37	30	81	47	41	41	50	21	18	77	27	67	73	41	29
Speech and Hearing	29	54	20	19	29	29	34	35	24	22	21	18	46	36	33	27	27	35
Social and Behavioral Adjustment																		
Psychological Services	87	93	100	86	83	97	89	82	88	83	79	55	92	95	89	100	78	79
Social Services	86	93	100	71	71	81	92	76	85	83	83	82	92	86	78	91	88	79
Sheltered Workshop	62	25	80	73	70	42	63	53	79	33	67	82	31	64	89	36	85	65
Personal Adjustment Counseling	89	71	100	94	89	87	87	72	94	89	90	82	69	95	100	91	90	91
Vocational Adjustment																		
Vocational Counseling	95	86	100	99	93	100	97	88	100	89	93	82	92	100	100	100	98	88
Vocational Evaluation	97	93	100	99	97	97	97	94	97	100	93	100	100	100	100	91	98	94
Work Adjustment	87	61	100	96	89	81	87	76	88	94	86	91	62	95	89	91	90	82
Academic Training	48	25	70	54	39	68	45	53	44	56	18	36	38	55	67	64	56	41
Technical Training	44	14	60	54	38	58	42	47	44	44	21	36	15	59	67	64	54	47
Sheltered Workshop	66	29	90	78	74	48	71	47	79	50	76	82	23	73	89	45	88	74

TABLE I (CONTINUED)

VARIABLES		TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
TYPE OF FACILITY																			
Voluntary Non-profit		71	68	40	76			76	59	79	56	93	100	69	82	44	45	83	82
Governmental		29	32	60	24			24	41	21	44	7	0	31	18	56	55	17	18
GEOGRAPHIC LOCATION																			
Region I		7	10	10	4	9	3					7	18	8	5	0	9	7	6
Region II		28	46	30	21	29	26					24	27	46	23	0	45	17	26
Region III		7	14	10	4	5	13					4	0	23	0	11	9	7	3
Region IV		8	4	0	12	8	10					10	9	0	14	11	0	15	9
Region V		22	4	20	30	27	10					34	27	8	27	33	9	34	26
Region VI		9	4	10	12	8	13					0	18	8	14	33	0	5	9
Region VII		9	7	10	10	9	10					10	0	8	9	11	9	10	15
Region VIII		2	4	0	1	1	3					4	0	0	5	0	0	0	3
Region IX		6	7	10	4	3	13					7	0	0	5	0	18	5	3
STAFFING PATTERNS																			
Total Staff 1-20	Eval. Staff 1-4	27	21	20	30	36	6	24	24	29	33							32	38
Total Staff 1-20	Eval. Staff 5-10	10	7	0	13	14	0	13	6	15	0							12	12
Total Staff 1-20	Eval. Staff 11-or more	2	0	0	3	1	3	3	0	0	6							0	0
Total Staff 21-60	Eval. Staff 1-4	12	36	0	3	12	13	18	18	6	6							10	9
Total Staff 21-60	Eval. Staff 5-10	21	11	10	27	24	13	16	18	27	22							22	15
Total Staff 21-60	Eval. Staff 11-or more	8	0	0	13	5	16	0	12	18	6							10	12
Total Staff 61-or more	Eval. Staff 1-4	3	0	10	3	1	6	3	6	3	0							2	3
Total Staff 61-or more	Eval. Staff 5-10	10	25	20	3	7	19	16	6	3	17							7	9
Total Staff 61-or more	Eval. Staff 11-or more	7	0	40	4	0	23	8	12	0	11							5	3

TABLE II

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Number of Respondents	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34
Percent Responding	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
TOTAL NUMBER OF PROFESSIONAL STAFF																		
Mean	41.8	44.9	109.5	30.6	26.8	78.5	46.6	47.4	28.8	50.8	9.7	13.7	41.1	33.2	40.0	97.2	36.7	34.5
S.D.	44.3	35.8	86.4	27.8	23.1	60.3	51.5	39.6	18.3	61.9	4.6	3.6	12.2	9.2	13.8	34.2	36.5	35.0
Maximum	238	150	238	123	133	238	238	147	67	216	19	18	60	54	60	150	150	133
Minimum	3	7	9	3	130	10	3	5	5	3	3	7	22	22	23	62	3	3
Range	235	143	229	120	3	228	235	142	62	213	16	18	38	32	37	88	147	130
No. Responding	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34

TABLE III

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Number of Respondents	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34
Percent Responding	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
TOTAL NUMBER VOC. EVALUATION STAFF																		
Mean	6.2	4.0	8.8	6.8	4.9	9.0	5.3	7.2	6.4	6.4	2.0	6.5	2.6	6.3	16.1	6.4	6.1	5.8
S.D.	5.1	2.8	6.6	5.4	4.1	6.2	3.8	6.9	5.4	5.1	1.1	1.3	1.1	1.1	4.8	1.8	5.2	5.4
Maximum	26	10	19	26	26	22	19	22	26	18	4	9	4	8	26	10	26	26
Minimum	1	1	2	1	1	1	1	1	1	1	1	5	1	5	11	5	1	1
Range	25	9	17	25	25	21	18	21	25	17	3	4	3	3	15	5	25	25
No. Responding	106	28	10	66	75	31	37	17	34	18	29	11	13	22	9	11	41	34
EDUCATIONAL ATTAINMENT OF VOC. EVAL. STAFF BY MEAN NUMBER OF STAFF																		
Masters Degree	2.1	1.8	6.6	2.5	1.8	4.3	2.2	2.5	2.2	4.0	.8	1.8	1.1	1.9	4.4	3.3	1.7	2.3
Bachelors Degree	2.8	1.5	4.6	3.2	2.2	4.2	1.9	3.4	2.9	3.8	1.1	2.1	1.0	2.9	5.7	2.3	2.3	2.3
2 Years College	.5	.2	.9	.6	.5	.5	.4	.6	.6	.4	.1	.8	.1	.5	2.0	.3	.7	.5
High School & Training	.8	.5	1.6	.8	.7	1.0	.9	.5	.9	.6	.1	.9	.4	.9	3.0	.2	1.1	.8
High School	.3	.1	.4	.4	.2	.6	.3	.5	.4	.1	0	.6	.1	0	1.9	.2	.5	.3
Incomplete High School	.1	.1	0	.1	.1	.1	.1	.1	.1	0	.1	.1	.1	0	.3	0	.1	.2

TABLE III (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
EDUC. BACKGROUNDS OF VOC. STAFF BY MEAN NUMBER OF STAFF																		
Industrial Arts	.8	.6	1.7	.7	.5	1.3	.9	.3	.7	1.1	.1	.1	.6	1.1	.7	1.1	.4	.5
Rehab. Couns.	1.0	.9	1.2	1.0	.9	1.0	1.3	.4	1.5	.6	.4	.6	.3	1.3	2.1	1.8	.7	1.0
Voc. Evaluation	.2	.3	.2	.1	.2	.1	.2	0	.1	.4	.2	.1	0	.4	.1	.1	.1	.2
Psychology	1.0	.5	2.0	1.2	.9	1.2	.9	1.4	.9	1.3	.5	1.4	.8	.7	2.1	.3	1.3	1.1
Occup. Therapy	.4	.5	.2	.3	.3	.6	.4	.6	.2	.2	.1	.9	.2	.1	.9	.6	.4	.3
Sociology	.4	.1	.5	.5	.4	3.0	.1	.8	.4	.4	.2	.3	.2	.5	.9	0	.2	.3
Personnel	.1	.1	0	.2	.1	.2	.1	.1	.2	.2	0	.1	.1	.1	.6	0	.7	.2
Teaching	.8	.3	.7	1.0	.6	1.2	.6	.9	.9	.9	.2	.8	.1	.7	2.3	.9	1.1	1.1
Social Work	.2	.1	0	.2	.2	.1	.2	.3	.2	.1	.2	.3	0	.1	.3	.3	.3	.3
School Counseling	.1	.1	.3	.1	.1	.2	.1	.1	.2	.1	0	.4	0	.1	0	.3	.1	.1
None of the Above	1.8	.9	2.7	2.2	1.4	2.9	1.4	3.0	2.3	1.0	.5	2.2	.4	1.1	7.3	1.0	2.2	1.9
PREVIOUS WORK EXPERIENCE OF VOC. EVAL. STAFF BY MEAN NO. OF STAFF																		
None	.8	.6	1.2	.8	.6	1.3	1.0	1.4	.5	.3	.4	1.8	.1	.6	1.0	1.1	.7	1.0
Less than 2 Years	1.0	.9	1.0	1.3	1.0	1.2	.8	.7	1.1	2.1	.6	.5	.4	1.3	2.9	1.4	1.3	1.0
3 to 5 Years	1.2	1.0	1.5	1.3	1.2	1.4	1.2	.9	1.7	.8	.6	1.1	.8	.9	3.3	1.7	1.1	1.1
6 to 8 Years	1.1	.6	1.2	1.5	1.6	1.5	1.0	1.4	1.3	.8	.2	1.8	.5	.9	4.0	.8	1.4	1.3
9 to 11 Years	.6	.2	1.2	.7	.4	1.0	.5	.9	.6	.5	.1	.5	.1	.6	2.0	.3	.5	.5
12 to 14 Years	.4	.1	1.0	.5	.3	.7	.3	.8	.4	.2	.2	.3	.2	.1	.8	.2	.2	.3
15 to 17 Years	.3	.2	.7	.3	.3	.5	.3	.5	.3	.3	0	.3	.3	.3	1.1	.2	.4	.3
18 to 20 Years	.3	.2	.2	.3	.2	.3	.2	.4	.3	.1	0	.4	0	.6	.4	0	.1	.1
More than 20 Years	.8	.5	1.3	.9	.7	1.1	.7	.9	.9	.7	.2	.6	.4	1.0	1.7	.7	.9	.9

TABLE III (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
MEAN RANK OF TRAINING OR EXPERIENCE CONSIDERED MOST APPROPRIATE FOR VOC. EVALUATORS																		
Industrial Arts	5.0	3.8	5.9	5.4	4.8	5.6	4.7	5.1	5.2	5.4	5.7	7.3	4.0	3.8	5.2	4.4	5.3	5.
Rehab. Couns.	3.6	4.0	2.8	3.6	3.5	3.7	3.4	3.6	3.5	4.1	2.6	3.1	4.2	5.2	3.7	3.0	3.9	4.
Psychology	4.7	4.7	4.5	4.6	4.3	5.6	5.1	5.3	4.1	4.5	3.9	3.5	4.2	5.7	5.1	5.5	4.8	4.
Occup. Therapy	6.0	6.0	6.7	6.1	5.9	6.6	5.4	6.3	6.9	5.8	5.7	5.5	6.2	5.5	8.2	6.5	5.7	5.
Sociology	8.4	8.3	8.6	8.3	8.5	8.0	8.5	7.1	8.7	8.6	8.4	7.5	7.9	8.5	8.4	8.7	8.6	8.
Personnel	7.4	7.3	7.8	7.3	7.6	7.0	7.1	7.5	7.9	6.9	7.8	8.8	7.7	6.4	6.7	6.9	7.8	7.
Teaching	5.9	5.8	6.1	5.9	5.9	5.9	6.2	5.9	5.9	5.5	6.7	6.5	5.2	5.3	5.1	5.5	5.5	5.
Work Experience	5.3	5.7	5.6	5.3	5.6	4.6	5.5	4.9	4.7	6.6	6.0	6.3	4.6	5.2	3.4	6.4	5.1	5.
Voc. Evaluation	2.8	2.8	2.9	2.7	2.8	2.8	2.6	3.1	2.8	2.9	2.1	3.0	3.2	2.6	3.8	4.0	2.8	2.
Social Work	7.9	7.5	7.5	8.2	8.0	7.8	7.7	8.2	8.0	8.0	7.7	6.8	8.2	8.6	8.0	8.1	8.4	8.
School Counseling	8.1	8.5	7.6	8.2	8.2	8.0	8.1	8.3	8.2	7.7	8.2	7.9	8.7	8.6	7.2	7.1	7.7	7.
MEAN % OF HANDICAPPING CONDITIONS SERVED IN VOC. EVAL. UNITS																		
Intellectual	31	17	12	40	34	23	24	42	34	32	39	42	22	28	34	20	62	3
Psychological	24	14	40	27	24	24	29	11	24	24	25	25	12	26	34	15	13	2
Social	7	8	11	7	6	10	5	9	10	6	4	6	10	9	11	8	6	
Vocational	6	7	6	5	5	7	5	6	6	6	3	8	7	5	5	12	5	
Physical	24	49	4	16	22	31	31	28	15	23	18	16	44	22	11	38	8	2
Sensory	7	5	26	4	9	4	5	4	11	9	10	3	5	11	5	7	5	

TABLE III (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
MEAN % OF CLIENT EVAL.COMPLETED IN SPEC. TIME INTERVALS																		
Less than 2 Weeks	11	12	10	10	10	10	8	14	13	9	11	27	9	6	5	6	10	7
3 to 5 Weeks	34	45	12	34	36	30	30	42	40	25	38	27	45	41	24	13	31	37
6 to 8 Weeks	22	12	5	28	25	14	18	18	32	16	27	25	21	19	38	18	29	25
9 to 11 Weeks	6	7	3	6	6	6	8	4	4	6	3	5	3	12	7	6	3	3
12 to 14 Weeks	6	8	8	5	5	8	6	2	3	17	5	3	2	9	3	16	6	7
15 to 17 Weeks	4	3	7	5	4	5	5	1	2	10	3	2	2	3	9	7	3	3
18 to 20 Weeks	4	4	6	3	4	3	6	3	1	4	3	2	3	3	3	10	2	2
More than 20 Weeks	13	10	50	9	10	23	20	15	6	12	8	10	14	7	11	24	16	15
MEAN % OF ANALYSIS OF CLIENT DISTRIBUTION FOLLOWING VOC. EVAL.																		
Direct Placement	12	18	3	11	11	14	8	11	18	10	6	14	18	15	19	17	9	8
Training	20	22	8	21	17	30	17	39	12	27	15	10	21	19	36	18	20	19
Continued Educ.	5	11	3	2	4	7	6	3	3	6	4	2	4	5	1	16	2	5
Workshop (transit.)	16	10	37	14	18	11	21	10	15	11	27	11	12	10	6	15	19	21
Workshop (terminal)	7	8	16	6	8	4	9	3	8	7	11	16	5	4	4	5	9	7
On the Job Training	7	10	11	5	7	5	6	7	5	11	3	4	14	12	5	6	6	9
Not Feasible	10	10	14	10	9	14	8	6	11	15	8	10	7	13	11	7	5	8
Work Adjustment	23	12	8	30	26	15	24	21	28	12	26	32	19	23	18	16	30	24

TABLE XV

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Number of Respondents	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34
Percent Responding	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
MOST FREQUENT HANDICAP REPORTED																		
Intellectual	38	14	30	49	45	23	26	53	47	33	45	45	31	41	44	27		62
Psychological	22	11	50	22	21	23	32	0	18	28	21	27	0	18	33	18		0
Social	3	7	0	1	1	6	3	0	6	0	3	0	8	5	0	0		0
Vocational	4	4	0	4	3	6	3	6	6	0	0	9	0	5	11	9		3
Physical	31	64	0	22	26	42	37	41	18	33	24	18	62	27	11	45		35
Sensory	3	0	20	0	4	0	0	0	6	6	7	0	0	5	0	0		0
2ND MOST FREQUENT HANDICAP REPORTED																		
Non-reported	14	11	30	12	13	16	11	18	15	17	21	18	8	9	0	27	24	
Intellectual	20	18	10	22	17	26	24	35	9	17	10	18	31	27	11	0	0	
Psychological	32	32	10	34	37	19	29	24	35	39	45	36	23	23	44	27	51	
Social	11	4	40	10	8	19	8	18	12	11	3	9	8	14	22	9	10	
Vocational	8	14	0	7	9	6	5	6	12	11	3	9	23	14	0	9	7	
Physical	12	18	10	10	13	10	21	0	12	6	17	9	0	9	22	18	5	
Sensory	3	4	0	3	3	3	3	0	6	0	0	0	8	5	0	9	2	
ESTABLISHED PHILOSOPHY AND OBJECTIVES FOR VOCATIONAL EVALUATION PROGRAM																		
No	4	7	20	0	3	6	5	6	0	6	3	9	0	0	0	9	2	3
Yes, Informally	39	43	20	42	39	39	47	59	24	33	45	36	38	41	33	45	37	32
Yes, Written	34	25	50	34	34	32	29	12	50	33	24	45	38	45	11	18	39	38
Yes, Available for Distribution	22	18	10	24	22	19	16	18	26	28	24	9	15	14	56	27	22	24
No Response	2	7	0	0	1	3	3	6	0	0	3	0	8	0	0	0	0	3

TABLE IV (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
VOCATIONAL EVALUATION TIME INTERVAL																		
Established Time	45	32	0	57	52	26	34	41	53	56	45	64	62	45	56	18	59	53
Open-ended Time	53	64	100	42	45	74	66	53	44	44	52	36	38	50	44	82	41	44
No Response	2	4	0	1	3	0	0	6	3	0	3	0	0	5	0	0	0	3
IDEAL ACTIVE CASELOAD FOR VOCATIONAL EVALUATORS																		
Less than 2 Clients	4	7	0	3	3	6	5	0	0	11	3	9	8	0	0	9	5	0
3 to 4 Clients	19	32	0	14	20	16	21	12	21	17	21	18	31	5	22	27	17	26
5 to 6 Clients	25	25	40	24	28	26	18	35	32	17	31	9	23	27	22	27	29	21
7 to 8 Clients	17	11	20	19	18	13	21	12	15	17	10	9	15	36	11	0	7	15
9 to 10 Clients	18	11	10	22	22	10	21	35	9	17	24	36	15	18	11	9	29	24
11 to 12 Clients	5	4	0	6	4	6	3	0	3	17	7	9	0	5	0	9	5	6
13 to 14 Clients	2	0	10	1	0	6	3	0	3	0	0	0	8	0	0	0	2	0
15 to 18 Clients	4	4	0	4	4	3	0	0	9	6	0	0	0	5	22	9	5	6
More than 18 Clients	2	0	10	1	0	6	3	0	3	0	0	0	0	0	11	0	0	0
No Response	4	7	10	3	4	6	5	6	6	0	3	9	0	5	0	9	0	3
AVERAGE NUMBER EVALUATIONS COMPLETED PER MONTH BY UNIT																		
1 to 5	27	54	10	18	34	10	47	6	21	17	55	36	31	5	0	36	27	26
6 to 10	18	25	40	12	18	16	13	24	18	22	21	9	31	18	0	27	15	21
11 to 15	12	4	0	18	14	6	8	18	18	6	3	27	8	27	0	9	15	6
16 to 20	8	7	10	9	8	10	8	0	9	17	7	9	31	9	11	0	2	0
21 to 25	10	7	0	12	8	16	11	18	9	6	0	0	0	14	22	9	10	6
26 to 30	6	0	0	9	7	3	3	0	12	6	0	9	0	14	22	0	12	15
31 to 40	5	0	10	6	1	13	5	0	3	11	0	0	0	5	11	0	5	9
41 to 50	2	0	0	4	1	6	0	0	6	6	3	0	0	0	22	0	2	6
More than 50	7	0	20	7	3	16	5	12	6	6	0	0	0	9	11	9	2	6
No Response	5	4	10	6	5	3	0	24	0	6	10	9	0	0	0	9	10	6

TABLE V

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Number of Respondents	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34
Percent Responding	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
PHYSICAL CAPACITY ANALYSIS																		
Typically Not Provided	25	11	10	34	27	19	29	35	18	22	38	36	8	27	22	18	37	26
Typically Provided in Facility	53	89	60	36	49	65	55	53	50	56	34	27	85	55	44	64	44	50
Typically Provided Outside Facility	10	0	10	13	13	0	11	0	9	17	21	9	0	5	11	0	5	3
Provided Both In and Out of Facility	10	0	10	15	9	13	5	6	21	6	7	27	8	9	22	9	12	21
No Response	2	0	10	1	1	3	0	6	3	0	0	0	0	5	0	9	2	0
PSYCHOLOGICAL TESTING																		
Typically Not Provided	7	7	20	4	7	6	5	12	6	6	10	18	0	0	0	18	5	6
Typically Provided in Facility	56	64	60	54	53	65	53	53	59	61	41	45	77	59	67	64	54	56
Typically Provided Outside Facility	12	4	0	16	16	3	11	24	6	17	24	18	8	5	11	0	22	15
Provided Both In and Out of Facility	25	25	20	25	25	26	32	12	29	17	24	18	15	36	22	18	20	24
AREAS OF PSYCHOLOGICAL TESTING																		
No Psychological Testing	4	4	0	4	5	0	5	12	0	0	7	9	0	5	0	0	5	6
General Ability	93	93	100	91	91	97	89	82	97	100	93	73	100	86	100	100	93	88
Dexterity and Performance	77	79	70	76	80	68	84	59	88	56	72	73	92	82	78	82	76	68
Behavioral Assessment	75	68	100	75	71	84	73	65	79	78	72	64	77	68	78	63	76	71
Aptitude	79	86	70	76	78	81	89	47	88	67	62	73	92	95	78	82	66	71
Vocational Interest	72	79	70	69	71	74	76	53	82	61	59	64	100	82	67	64	59	65

TABLE V (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
AVERAGE TIME PER CLIENT SPENT ON PSYCHOLOGICAL TESTING																		
None	4	4	0	4	5	0	5	12	0	0	7	9	0	5	0	0	5	6
Less than 1 Hour	4	7	0	3	3	6	5	12	0	0	7	0	0	0	11	9	5	3
1 to 3 Hours	35	32	40	37	41	23	31	29	38	44	55	36	15	27	33	45	44	41
4 to 6 Hours	35	36	40	33	33	42	37	29	38	33	24	27	54	41	33	27	22	24
7 to 9 Hours	7	4	0	9	5	10	8	0	3	17	0	9	0	14	0	18	7	15
10 to 12 Hours	7	11	10	4	5	10	8	0	12	0	7	9	8	5	11	0	10	9
13 to 15 Hours	1	0	0	1	1	0	0	0	3	0	0	9	0	0	0	0	0	0
16 to 20 Hours	6	4	10	6	4	10	0	18	6	6	0	0	8	9	11	0	5	3
More than 20 Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Response	1	4	0	1	3	0	5	0	0	0	0	0	15	0	0	0	2	0
BEHAVIORAL ASSESSMENT																		
Typically Not Provided	12	11	10	12	16	3	8	24	12	11	17	27	15	14	0	0	17	15
Typically Provided in Facility	54	64	90	45	47	71	58	53	47	61	34	27	69	59	56	82	49	50
Typically Provided Outside Facility	10	0	0	15	11	6	5	12	12	11	17	9	0	0	22	9	12	6
Provided Both In and Out of Facility	24	25	0	28	26	19	29	12	29	17	31	36	15	27	22	9	22	29
JOB ANALYSIS																		
Typically Not Provided	30	39	30	27	27	35	29	47	21	33	31	27	15	27	33	45	32	35
Typically Provided in Facility	52	39	50	60	57	42	58	29	62	44	48	55	62	59	44	45	46	50
Typically Provided Outside Facility	3	4	0	1	4	0	3	0	6	0	7	9	0	0	0	0	2	3
Provided Both In and Out of Facility	13	18	20	9	9	23	11	18	9	22	10	9	23	9	22	9	17	9
No Response	2	0	0	3	3	0	0	6	3	0	3	0	0	5	0	0	2	3

TABLE V (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
TIME SPENT ON JOB ANALYSIS																		
None	22	29	10	22	22	23	26	35	15	17	28	36	0	27	11	27	22	26
Less than 2 Hours	25	32	40	21	24	29	21	24	24	39	21	0	31	14	56	27	22	21
3 to 6 Hours	19	14	20	19	20	16	16	6	24	28	21	18	23	27	0	9	24	24
7 to 10 Hours	7	7	0	9	11	0	16	0	6	0	10	27	15	0	0	0	7	3
11 to 14 Hours	3	4	0	3	3	3	0	12	0	6	0	0	0	5	0	9	0	3
15 to 18 Hours	5	7	0	4	4	6	8	0	6	0	3	0	8	9	11	0	5	6
19 to 22 Hours	3	0	10	3	4	0	3	0	6	0	3	0	0	5	0	9	7	9
23 to 30 Hours	7	4	10	7	5	13	8	6	9	6	7	9	15	0	11	9	0	0
More than 30 Hours	5	4	0	6	4	6	3	6	6	6	3	9	8	5	11	0	5	3
No Response	4	0	10	4	4	3	0	12	6	0	3	0	0	9	0	9	7	6
JOB SAMPLE																		
Typically Not Provided	17	25	20	13	17	16	16	24	15	17	21	36	8	14	0	27	15	15
Typically Provided in Facility	75	64	60	82	75	74	76	58	82	72	69	64	77	73	100	73	78	85
Typically Provided Outside Facility	1	0	10	1	1	3	3	0	0	6	3	0	0	0	0	0	0	0
Provided Both In and Out of Facility	7	11	10	4	7	6	5	18	3	6	7	0	15	14	0	0	7	0
TIME SPENT ON JOB SAMPLE																		
None	16	21	20	13	16	16	16	18	15	17	21	36	0	14	0	27	15	15
Less than 2 Hours	3	7	0	1	3	3	3	6	0	6	3	0	15	0	0	0	0	0
3 to 6 Hours	5	4	0	6	4	6	8	0	0	11	3	18	0	5	0	0	5	3
7 to 10 Hours	7	0	10	10	9	3	5	0	3	28	17	0	0	5	11	0	7	12
11 to 14 Hours	3	0	0	4	4	0	3	0	6	0	0	18	8	0	0	0	2	3
15 to 18 Hours	6	0	10	7	4	10	5	6	6	6	0	0	0	14	11	9	2	3
19 to 22 Hours	3	7	10	1	3	6	5	0	6	0	0	0	15	0	11	0	2	3
23 to 30 Hours	14	18	20	12	14	13	16	6	21	6	3	9	15	23	11	27	10	9
More than 30 Hours	41	43	20	42	43	35	39	59	41	28	52	18	46	41	44	27	54	50
No Response	2	0	10	1	0	6	0	6	3	0	0	0	0	0	11	9	2	3

TABLE V (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
KIND OF JOB SAMPLES USED																		
None	17	21	30	13	16	19	18	18	15	17	21	36	0	14	0	27	15	15
Samples Developed in Unit	37	25	40	43	39	32	31	41	35	50	38	45	31	41	44	27	56	32
Standardized System	14	14	10	13	12	19	16	18	12	11	17	0	23	9	22	0	7	15
Both of Previous Two	32	39	20	31	33	29	34	24	38	22	24	18	46	36	33	45	22	38
NUMBER OF JOB SAMPLES USED																		
None	15	18	20	13	14	16	16	18	15	11	17	36	0	14	0	27	15	12
Less than 5	5	7	10	3	4	6	5	6	3	6	10	0	8	0	0	9	5	6
6 to 10	17	4	30	19	16	19	8	18	18	33	28	0	15	14	22	0	20	18
11 to 15	13	21	0	10	14	10	18	12	6	17	10	18	23	14	22	9	17	12
16 to 20	9	11	10	9	8	13	11	6	12	6	10	9	15	9	0	9	12	9
21 to 25	7	14	10	4	8	6	13	0	6	6	7	18	0	9	0	9	10	9
26 to 30	6	4	0	7	7	3	8	0	9	0	3	0	8	9	22	0	0	3
31 to 50	9	7	10	10	9	10	5	18	12	6	10	0	15	5	22	9	7	9
Over 50	18	14	0	22	18	16	16	24	21	11	3	18	15	23	11	27	15	24
No Response	1	0	10	0	1	0	0	0	0	6	0	0	0	5	0	0	0	0
USE OF JOB SAMPLES																		
Evaluate Specific Job Areas	27	18	0	34	24	35	26	29	32	17	21	27	38	32	33	0	24	38
Evaluate Occupational Areas	74	68	70	76	76	68	68	76	79	83	69	64	69	86	78	73	80	79
JOB TRYOUT																		
Typically Not Provided	22	29	20	21	25	16	26	18	29	6	34	45	23	9	11	18	22	12
Typically Provided in Facility	57	50	60	58	55	61	61	59	53	55	48	45	62	50	67	73	61	74
Typically Provided Outside Facility	5	7	10	3	3	10	3	6	0	17	3	0	8	0	11	0	0	6
Provided Both In and Out of Facility	16	14	10	18	17	13	11	18	18	22	14	7	8	41	11	9	17	9

TABLE V (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
WHERE JOB TRYOUT IS USED																		
Not Used	18	25	20	15	18	16	24	18	21	0	28	36	15	5	11	18	17	12
In Service Areas	60	57	60	61	58	65	58	65	53	72	34	55	62	86	56	55	56	62
In Vocational Training Areas	49	36	40	54	51	42	55	53	41	44	38	36	46	63	56	55	56	59
In Other Facilities	27	25	40	27	25	32	21	41	24	33	17	18	15	45	33	18	22	24
In Industry or Business	36	18	30	45	37	32	24	35	44	44	24	27	15	59	44	27	39	32
TIME SPENT ON JOB TRYOUT																		
None	16	21	20	13	17	13	21	18	18	0	28	36	8	5	0	18	17	12
Less than 1 Day	3	4	0	3	4	0	0	0	6	6	3	0	0	9	0	0	5	6
2 to 4 Days	7	11	0	4	6	6	11	18	0	0	0	0	23	0	11	9	5	6
5 to 7 Days	14	14	10	15	13	16	8	24	15	17	7	18	15	18	22	18	15	12
8 to 10 Days	9	4	10	12	9	10	5	6	12	17	10	9	8	5	22	0	10	9
11 to 13 Days	1	0	0	1	1	0	0	0	0	6	3	0	0	0	0	0	2	3
14 to 16 Days	11	11	10	10	11	13	11	6	18	6	10	18	8	14	11	9	15	24
17 to 20 Days	10	4	10	13	11	10	11	12	12	6	14	0	8	23	0	0	7	9
More than 20 Days	25	29	40	22	25	26	29	18	15	44	24	18	15	23	22	45	20	15
No Response	4	4	0	4	3	6	5	0	6	0	0	0	15	5	11	0	5	6
SITUATIONAL APPROACH																		
Typically Not Provided	21	50	20	9	17	29	26	29	9	22	17	18	38	1	11	36	12	21
Typically Provided in Facility	70	36	60	85	76	55	63	59	85	67	79	82	54	82	78	36	78	76
Typically Provided Outside Facility	3	4	10	1	0	10	3	0	3	6	0	0	0	0	11	9	2	3
Provided Both In and Out of Facility	5	7	10	4	7	3	5	12	3	6	3	0	0	14	0	18	7	0
No Response	1	4	0	0	0	3	3	0	0	0	0	0	8	0	0	0	0	0

TABLE V (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
TIME SPENT ON SITUATIONAL APPROACH																		
None	16	50	10	4	13	26	21	29	9	11	17	18	31	0	11	36	7	18
Less than 1 Week	12	11	0	15	12	13	11	18	15	6	7	18	23	5	0	9	15	15
2 to 4 Weeks	35	14	10	48	39	26	21	29	53	39	38	9	38	59	67	9	39	3[illegible]
5 to 7 Weeks	10	4	20	12	12	6	13	6	15	0	14	18	0	18	0	0	12	1[illegible]
8 to 10 Weeks	4	0	0	4	5	0	5	0	3	6	10	9	0	0	0	0	5	0
11 to 13 Weeks	5	11	0	3	5	3	8	0	0	11	6	0	0	9	0	9	2	6
14 to 16 Weeks	3	4	0	3	3	3	3	0	0	11	0	0	0	0	11	9	2	[illegible]
17 to 19 Weeks	1	0	10	3	1	0	3	0	0	0	0	0	0	0	0	9	0	0
20 to 30 Weeks	5	4	20	0	1	13	5	6	3	6	0	9	0	0	11	18	10	[illegible]
More than 30 Weeks	5	0	20	4	5	3	8	6	3	0	10	9	0	0	0	0	7	[illegible]
No Response	4	4	10	3	3	6	3	6	0	11	0	9	8	9	0	0	2	[illegible]
RANK OF EVALUATION APPROACHES																		
Situational 1	24	14	60	24	27	16	37	12	26	6	31	55	8	14	22	18	24	18
2	21	14	10	25	18	29	18	12	18	44	34	0	15	18	33	18	17	21
3	20	25	20	16	18	23	16	24	24	17	17	9	15	[illegible]	33	27	17	26
4	14	18	0	15	14	13	16	24	12	6	10	18	23	14	11	9	15	12
5	9	14	0	9	11	6	5	12	9	17	3	0	31	9	0	18	15	12
No Response	11	14	10	10	11	13	8	18	12	11	3	18	8	27	0	9	12	12
Psychological Testing 1	18	18	20	18	17	19	8	35	18	22	17	9	23	14	33	18	24	18
2	10	14	20	7	13	3	5	6	21	6	14	9	23	5	0	9	12	15
3	15	11	20	16	14	16	13	12	18	17	17	0	8	14	33	18	12	9
4	16	14	20	16	16	16	29	18	9	0	17	9	8	23	11	9	15	18
5	29	29	10	30	27	32	37	12	21	44	31	45	31	18	22	36	24	29
No Response	12	14	10	12	12	13	8	18	15	11	3	27	8	27	0	9	12	12
Job Analysis 1	1	4	0	0	0	3	0	0	0	6	0	0	0	0	0	9	0	0
2	9	18	0	7	9	10	5	18	9	11	10	9	31	0	11	9	10	12
3	16	18	0	18	20	6	21	6	12	22	17	9	23	18	11	18	20	15
4	29	21	30	30	32	23	37	6	29	33	34	36	31	18	22	27	29	32
5	33	25	60	33	27	45	29	53	35	17	34	18	8	36	56	27	29	29
No Response	12	14	10	12	12	13	8	18	15	11	3	27	8	27	0	9	12	12

TABLE V (CONTINUED)

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
RANK OF EVALUATION APPROACHES (CONTINUED)																		
Job Sample 1	26	25	0	31	27	23	21	29	29	28	28	18	23	23	33	27	20	32
2	25	18	10	30	27	19	37	18	24	11	24	36	8	36	33	18	27	21
3	18	21	30	13	16	23	13	29	15	22	21	0	46	13	11	9	20	15
4	10	7	30	9	5	23	8	6	9	22	10	9	0	0	22	27	15	9
5	7	14	20	3	11	0	13	0	6	6	10	9	15	0	0	9	5	12
No Response	13	14	10	13	13	13	8	18	18	11	7	27	8	27	0	9	15	12
Job Tryout 1	20	25	10	16	17	26	26	6	15	28	21	0	38	23	11	18	20	21
2	21	21	50	18	20	26	26	29	15	17	14	18	15	14	22	36	22	21
3	20	11	20	24	20	19	29	12	18	11	24	55	0	9	11	18	20	24
4	18	25	10	16	20	13	3	29	24	28	21	0	31	18	33	18	12	18
5	8	4	0	12	11	3	8	6	12	6	14	0	8	9	22	0	12	6
No Response	13	14	10	13	13	13	8	18	18	11	7	27	8	27	0	9	15	12
FOLLOW-UP AFTER EVALUATION																		
Yes	65	50	60	72	68	58	68	59	68	61	79	55	62	64	78	45	76	62

TABLE VI

VARIABLES	TOTAL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Number of Respondents	107	28	10	67	76	31	38	17	34	18	29	11	13	22	9	11	41	34
Percent Responding	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
WORK ADJUSTMENT																		
Typically Not Provided	9	25	0	4	5	19	11	18	9	0	10	9	15	0	11	27	7	12
Typically Provided in Facility	78	64	70	84	83	65	79	76	76	78	72	82	85	82	78	64	81	79
Typically Provided Outside Facility	2		10	1	1	3	3	0	3	0	0	0	0	5	0	0	2	0
Provided Both In and Out of Facility	10	7	20	10	9	13	5	6	12	22	17	0	0	14	11	9	10	9
No Response	1	4	0	0	1	0	3	0	0	0	0	9	0	0	0	0	0	0
WHERE WORK ADJUSTMENT IS PROVIDED																		
None	11	29	0	6	9	16	13	18	12	0	10	18	23	5	11	18	12	15
Workshop	67	39	80	76	76	45	68	59	79	50	72	82	46	82	78	45	81	74
Counseling	70	57	70	75	80	45	61	65	85	67	86	73	77	77	67	55	81	71
Evaluation	48	39	40	51	47	48	55	41	50	33	31	55	54	55	67	45	37	41
Occupational Therapy	21	36	30	12	20	23	29	18	15	17	10	18	31	23	0	27	10	15
Training Areas	71	46	90	79	75	61	58	41	82	89	79	55	46	86	67	64	76	68
Outside the Facility	34	14	60	39	33	35	26	24	41	44	34	27	0	45	33	45	32	32

CONCLUSION

The overall findings of this study indicate that there are some common threads in the patterns of vocational evaluation services provided by the various types of facilities and programs identified. More significant, however, are the findings that there are differences in the vocational evaluation services as a function of the emphasis, location and staffing patterns of these facilities. While it is possible that several of these actuarial differences are generated by external factors (e.g., a larger staff can provide a wider variety of services), it is also possible that the differences noted are a function of different or unique programs of vocational evaluation. The next fundamental issue is, "Which of these programs or approaches in vocational evaluation are the most effective?" The purpose of this study was only to identify these programs, hopefully, the purpose of subsequent study would be to identify the effectiveness of these programs, and which, if any, contribute to a better overall rehabilitation assessment.

The data from this study are stored on IBM cards. An investigator can readily sort out any aspect of the vocational evaluation process previously identified and have available those facilities or centers that are characteristically strong with regard to that aspect. For example, once a group of facilities have been identified whose primary approach to vocational evaluation is psychological testing, a cooperative exploration of a particular test or series of tests among these facilities can be initiated. These facilities can act as each other's norming groups or aid in the standardization of newly devised tests. Likewise, facilities interested primarily in the job sample

approach, job analysis or situational assessment can become more intrinsically involved in developing a better vocational evaluation methodology if they can be made aware of each other's respective interests.

It is proposed that the data from this study be used beyond the traditional and static descriptive phase, to that of a dynamic on-going effort of bringing together facilities and centers with common interests and programs, for the purpose of further refining or renovating the current state of the art in vocational evaluation.

APPENDIX A

THE PATTERNS OF VOCATIONAL EVALUATION SERVICES

Principal Investigator: Ray Sankovsky
Research and Training Center of the University of Pittsburgh

The purpose of this study is to describe and obtain a better understanding of the vocational evaluation process in rehabilitation facilities.

For purposes of this questionnaire, we have defined vocational evaluation as follows:

- Vocational evaluation - a diagnostic process of determining actual or expected performance for work based on information obtained from one or more of the five approaches described below.

As contrasted with:

- Work adjustment - a therapeutic process designed to enhance an individual's vocational potential by providing an increase in (1) physical tolerance, (2) vocational knowledge and experience, and/or (3) appropriate work attitudes and behaviors.

In order to present a common basis for responding to this questionnaire--so that we all use the same terms the same way--we have operationally defined several approaches or techniques used in vocational evaluation. Please refer to these as needed when you answer the various questions.

1. Psychological Testing Approach

   -to collect intellectual and behavioral information
   -by paper and pencil tests, performance tests, and clinical tests
   -to determine actual or potential intellectual or performance potential for work or training
   -using general ability, aptitude, achievement, dexterity, performance, interest, etc., measures or devices

2. Job or Work Sample Approach

   -to collect performance information on general or specific work skills
   -by using a model or reproduction of a job or part of a job
   -to determine actual or potential performance on general work skills
   -on a job or part of a job occurring in business, trade, industrial or service area

3. Situational Approach

   -observations of a client's work behaviors and attitudes in a structured (but not actual) work setting under the direction of a supervisor
   -to determine work behaviors and personality
   -typically using continuous and sustained activities, e.g., assembling, packaging, collating, etc.

4. Job Tryout Approach

-evaluation of a client's actual work skills on a specific job
-in a real-work industrial, business, trade, or service operation with pay
-to determine his suitability and performance using the actual tools of the job
-by comparing his performance to employees having the same job

5. Job Analysis Approach

-evaluation and description of a job or work setting
-in a real-work industrial, business, trade or service operation
-to determine the minimum and maximum demands (physical, emotional, environmental) required of a perspective employee
-as a means of properly assigning clients meeting these demands of the job to the job

Instructions for Completion

1. Items 1-5 should be completed by the facility administrator.

2. All other items should be completed by the Supervisor of Vocational Evaluation.

3. Please mark the responses with an X.

4. Please complete the questionnaire as accurately as you can.

5. Please mail the completed questionnaire in the enclosed self-addressed stamped envelope. All responding facilities will receive a copy of the results.

Please complete the questionnaire and return within two weeks. Many thanks for your help.

NAME OF FACILITY _____
Please Print

ADDRESS _____
City State Zip Code

ADMINISTRATOR _____
Please Print

EVALUATOR _____
(Individual who completes the questionnaire) Please Print

The information obtained by this survey will be kept confidential, and used for research purposes only.

Section I: Information on Your Facility

1. Please rank in order from (1) for most to (3) for least the prime emphasis of your facility:

   1. _____ Physical restoration (to upgrade physical functioning through a variety of medically related services)
   2. _____ Social and behavioral adjustment (to identify and help resolve problems in social living through a variety of psychological and social services)
   3. _____ Vocational adjustment (to help overcome unemployment through a variety of services including counseling, evaluation, training and education, placement, referral and sustained follow-up)

2. In order to meet its objectives, a variety of services and programs are available in a rehabilitation facility. No single facility or program can be expected to serve all the problems encountered in rehabilitation; for this reason the patterns of services vary with the established objectives, availability of staff, etc. For each of the previously described objectives please indicate the general types of services your facility provides. (Check those that are appropriate.)

   A. Physical Restoration

      1. _____ Physical therapy
      2. _____ Occupational therapy
      3. _____ Physical Medicine and Rehabilitation
      4. _____ Recreation therapy
      5. _____ Specify other_____

   B. Social and Behavioral Adjustment

      1. _____ Psychological services (personality assessment, etc.)
      2. _____ Social services (family contacts, etc.)
      3. _____ Sheltered workshop
      4. _____ Personal adjustment counseling
      5. _____ Specify other_____

   C. Vocational Adjustment

      1. _____ Vocational counseling
      2. _____ Vocational evaluation
      3. _____ Work adjustment
      4. _____ Academic training
      5. _____ Technical training
      6. _____ Sheltered workshop
      7. _____ Specify other_____

3. How would you classify your facility: (Check only one.)

   1. _____ Voluntary non-profit
   2. _____ Governmental

Please go on to the next page.

4. Please check the region in which your facility is located.

1. _____ Region I: Conn., Me., N.H., R.I., Vt., Mass.
2. _____ Region II: Del., N.J., N.Y., Penna.
3. _____ Region III: D.C., Ky., Md., N.C., Va., W.Va., Puerto Rico, Virgin Islands
4. _____ Region IV: Ala., Fla., Ga., Miss., S.C., Tenn.
5. _____ Region V: Ill., Ind., Mich., O., Wis.
6. _____ Region VI: Ia., Kan., Minn., Mo., Neb., N.D., S.D.
7. _____ Region VII: Ark., La., N.M., Okla., Tex.
8. _____ Region VIII: Col., Idaho, Mon., Utah, Wyo.
9. _____ Region IX: Alaska, Ariz., Calif., Hawaii, Nev., Oreg., Wash., Guam

5. What is the total number of professional staff employed throughout your facility (full-time staff and the summation of part-time staff)? Include physicians, registered nurses, occupational and physical therapists, psychiatrists, social workers, psychologists, speech pathologists and audiologists, vocational evaluators, rehabilitation counselors, academic and technical instructors, administrators.... (Do not include clerical and maintenance staff.)

_____

Section II: Information Concerning Vocational Evaluation Staff and the Vocational Evaluation Unit

6. Please indicate the approximate percent of the handicapping conditions your evaluation unit typically serves for each of the major categories below: (Indicate only primary handicapping conditions.)

1. ____% Intellectual (learning disabilities, mentally retarded...)
2. ____% Psychological (neurotics, psychotics, character disorders, emotional disorders...)
3. ____% Social (alcoholics, drug addicts, delinquents, minority groups, older workers, culturally disadvantaged, public offenders...)
4. ____% Vocational (inadequate work histories, poor work habits, poor job finding skills...)
5. ____% Physical (severe and moderate physical problems or residuals-for example: stroke, congenital malformations, amputations, neurological, cardiac...)
6. ____% Sensory (hearing, vision, speech)

Total: 100%

7. Please indicate the number of your vocational evaluation staff that have the following level of educational attainment: (List only the highest classification for each member.)

1. _____ Master's degree or above
2. _____ Bachelors degree
3. _____ At least two years of college
4. _____ High school graduate plus special training
5. _____ High school graduate
6. _____ Did not complete high school
7. _____ Total number of vocational evaluation staff

Please go on to the next page.

8. Please indicate the number of your vocational evaluation staff who have the following types of educational backgrounds: (Please indicate only the major background area for each member.)

1. _____ Industrial arts
2. _____ Rehabilitation counseling
3. _____ Vocational evaluation
4. _____ Psychology
5. _____ Occupational therapy
6. _____ Sociology
7. _____ Personnel
8. _____ Teaching (technical, trade, high school)
9. _____ Social work
10. _____ School counseling
11. _____ None of the above

9. Please indicate the amount of work experience of your staff prior to beginning their work in vocational evaluation: (Indicate the number of staff for each category.)

1. _____ No work experience
2. _____ Less than 2 years
3. _____ Between 3 and 5 years
4. _____ Between 6 and 8 years
5. _____ Between 9 and 11 years
6. _____ Between 12 and 14 years
7. _____ Between 15 and 17 years
8. _____ Between 18 and 20 years
9. _____ More than 20 years

10. Based on your past experience, please rank in order from highest (No. 1) to lowest (No. 11) the areas of training or experience you feel are the most appropriate for vocational evaluation.

1. _____ Industrial arts
2. _____ Rehabilitation counseling
3. _____ Psychology
4. _____ Occupational therapy
5. _____ Sociology
6. _____ Personnel
7. _____ Teaching (technical, trade, high school)
8. _____ Work experience
9. _____ Vocational evaluation
10. _____ Social work
11. _____ School counseling

11. Have the philosophy and objectives of your evaluation program been established? (Check only one.)

1. _____ No
2. _____ Yes, informally
3. _____ Yes, written
4. _____ Yes, available for distribution

Please go on to the next page.

12. Please check those objectives listed below that your vocational evaluation program has established either in writing or informally. (The means for attaining these objectives are not limited to the vocational evaluation unit proper, but can be implemented by any department or unit within the facility, or by purchasing services or programs from other facilities.)

1. _____ To evaluate the clients' general ability (intelligence)
2. _____ To evaluate the clients' aptitudes
3. _____ To evaluate the clients' interests
4. _____ To evaluate the clients' dexterities
5. _____ To evaluate the clients' personality
6. _____ To evaluate the clients' present work skills
7. _____ To evaluate the clients' physical capacities
8. _____ To evaluate the clients' social skills and behavior
9. _____ To evaluate the clients' work behavior

13. Although vocational evaluation services are designed to meet the needs of the individual client, many programs have some typical phase or time interval. Is your vocational evaluation program typically conducted on: (Please check only one.)

1. _____ An established time interval, such as a three-week program, a ten-week program, a two month program...
2. _____ An open-ended time interval that varies for different clients

14. Does your vocational evaluation program typically use: (Please check only one.)

1. _____ A standard procedure in which each client goes through an established sequence, e.g., psychological testing, job samples, tryouts...
2. _____ A variable procedure in which each client has a program developed separately

15. Recognizing that the evaluation of a client's potential is dependent on many factors and that the time element may vary for most clients, what percentage of the clients in your vocational evaluation program have their services completed within each of the following time categories: (Indicate a percentage for each of the appropriate categories.)

1. ____% Less than 2 weeks
2. ____% Between 3 to 5 weeks
3. ____% Between 6 to 8 weeks
4. ____% Between 9 to 11 weeks
5. ____% Between 12 to 14 weeks
6. ____% Between 15 to 17 weeks
7. ____% Between 18 to 20 weeks
8. ____% More than 20 weeks

Total: 100%

Please go on to the next page.

16. What is the average active caseload for a vocational evaluator in your program? (Active means the total number of clients undergoing evaluation at one time.) (Check only one.)

1. _____ Less than two clients
2. _____ Three to four clients
3. _____ Five to six clients
4. _____ Seven to eight clients
5. _____ Nine to ten clients
6. _____ Eleven to twelve clients
7. _____ Thirteen to fourteen clients
8. _____ Fifteen to eighteen clients
9. _____ More than eighteen clients

17. What in your estimation should be the ideal active caseload for a vocational evaluator? (Active means the total number of clients undergoing evaluation at one time.) (Check only one.)

1. _____ Less than two clients
2. _____ Three to four clients
3. _____ Five to six clients
4. _____ Seven to eight clients
5. _____ Nine to ten clients
6. _____ Eleven to twelve clients
7. _____ Thirteen to fourteen clients
8. _____ Fifteen to eighteen clients
9. _____ More than eighteen clients

18. On the average, how many evaluations are completed in your program per month? (Check only one.)

1. _____ One to five clients
2. _____ Six to ten clients
3. _____ Eleven to fifteen clients
4. _____ Sixteen to twenty clients
5. _____ Twenty-one to twenty-five clients
6. _____ Twenty-six to thirty clients
7. _____ Thirty-one to forty clients
8. _____ Forty-one to fifty clients
9. _____ More than fifty clients

19. What kind of information regarding the client would you prefer to have, but typically do not have, prior to beginning the client's evaluation? (Check all those that are appropriate.)

We prefer to have:

1. _____ No client information
2. _____ Social and family background
3. _____ Past educational records (transcripts of elementary or high school, military training, trade or technical schools...)
4. _____ A chronological record of past work history
5. _____ Results of medical and specialist examinations
6. _____ Intellectual, aptitude, interest, dexterity testing
7. _____ Personality and behavioral assessment or testing
8. _____ Please specify other_____

_____

Please go on to the next page.

20. Is a physical capacity analysis (including a systematic evaluation of the client's physical functioning: walking, running, stooping... range of motion, lifting, carrying...) conducted in conjunction with specific job objectives, e.g., a physical capacity analysis of a hemiplegic to evaluate his physical potential to function as a janitor? (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility, e.g., occupational therapy
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

21. To what extent is a physical capacity analysis provided for clients? (Check only one.)

1. _____ Seldom or never
2. _____ Occasionally
3. _____ Usually
4. _____ Routinely

22. Is psychological testing including: general ability, dexterity performance, aptitude achievement and vocational interest, but not personality assessment: (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

23. Is personality and behavioral testing or assessment: (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

24. Please check those areas of psychological testing that your clients typically receive.

1. _____ No psychological testing is provided
2. _____ General ability (intelligence)
3. _____ Dexterity and performance
4. _____ Personality and behavioral assessment
5. _____ Aptitude
6. _____ Vocational interest

25. Recognizing that the amount of psychological testing per client varies, <u>on the average</u> how much time per client is spent on psychological testing: (Check only one.)

1. _____ None
2. _____ Less than 1 hour

Please go on to the next page.

3. _____ Between 1 hour to 3 hours
4. _____ Between 4 hours to 6 hours
5. _____ Between 7 hours to 9 hours
6. _____ Between 10 hours to 12 hours
7. _____ Between 13 hours to 15 hours
8. _____ Between 16 hours to 20 hours
9. _____ More than 20 hours (please specify-_____hours)

For Questions 26 and 27

The job analysis approach, as used in the Dictionary of Occupational Titles, describes the characteristics of jobs so that the job can be matched to the man with the appropriate attributes. Some facilities do their own job analysis in local industrial or business settings, as a means of more precisely matching a handicapped person and a particular job. With this in mind, please answer questions 26 and 27.

26. Is the job analysis approach or components of it: (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

27. In the typical client's evaluation program approximately how much time is spent on the job analysis approach or segments of it? (Check only one.)

1. _____ None
2. _____ Less than 2 hours
3. _____ Between 3 to 6 hours
4. _____ Between 7 to 10 hours
5. _____ Between 11 to 14 hours
6. _____ Between 15 to 18 hours
7. _____ Between 19 to 22 hours
8. _____ Between 23 to 30 hours
9. _____ More than 30 hours (please specify-_____hours)

For Questions 28 to 32

Job and work samples are models or reproductions of jobs or parts of a job that occur either specifically or generally in an industrial business or trade area; they often include the tools of the trade and the standards and norms associated with that job, e.g., assembling nuts and bolts, assembling and disassembling a gasoline motor.

28. Is either the job or work sample approach:

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation program or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

29. In a typical client's evaluation program, on the average how much time is spent on job or work samples? (Check only one.)

1. _____ None
2. _____ Less than 2 hours
3. _____ Between 3 to 6 hours
4. _____ Between 7 to 10 hours
5. _____ Between 11 to 14 hours
6. _____ Between 15 to 18 hours
7. _____ Between 19 to 22 hours
8. _____ Between 23 to 30 hours
9. _____ More than 30 hours (please specify-_____hours)

30. What kind of job or work samples does your vocational evaluation program use?

1. _____ None
2. _____ Job or work samples that were developed and standardized in our unit
3. _____ A standardized system or collection of job or work samples (e.g., TOWER)

31. How many job or work samples does your program have and use in the evaluation process? (Check only one.)

1. _____ None
2. _____ Less than 5
3. _____ Between 6 and 10
4. _____ Between 11 and 15
5. _____ Between 16 and 20
6. _____ Between 21 and 25
7. _____ Between 26 and 30
8. _____ Between 31 and 50
9. _____ Over 50

32. In using your job or work samples do you generally:

1. _____ Evaluate for specific job areas
2. _____ Evaluate for occupational areas

For Questions 33 to 35

The job or shop tryout approach involves placing the client into an actual industrial business or trade work or training environment under the guidance of a foreman, supervisor or instructor to determine the client's present skills or potential skills for work in that area.

33. The job or shop tryout is: (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

Please go on to the next page.

34. Where do you use the job or shop tryout as part of your vocational evaluation program?

1. _____ We do not use the job or shop tryout
2. _____ In the service areas in our facility (kitchen, laundry, maintenance...)
3. _____ In vocational training areas in our facility
4. _____ In other rehabilitation or related facilities
5. _____ In industrial or business settings
6. _____ Specify other_____

35. Recognizing that all clients in an evaluation program do not receive a job or shop tryout; for those that do, what amount of time is spent on the average on a job or shop tryout in your program? (Check only one.)

1. _____ None
2. _____ Less than 1 day
3. _____ Between 2 and 4 days
4. _____ Between 5 and 7 days
5. _____ Between 8 and 10 days
6. _____ Between 11 and 13 days
7. _____ Between 14 and 16 days
8. _____ Between 17 and 20 days
9. _____ More than 20 days (please specify time-_____days)

For Questions 36 and 37

The situational approach involves placing the client in a work environment that has some of the characteristics of a competitive employment situation, e.g., time schedules, production rate, wages, noise, etc. The location of the work environment, however, in the situational approach is for the most part not commercially oriented and the type of work is often routine, e.g., assembling, packaging, folding, collating, etc. The prime evaluation objective of the situational approach is to evaluate the client's work behaviors and work personality. The situational approach has as another major objective, the provision of work adjustment. In considering the situational approach in the following series of questions do not include the work adjustment component.

36. The situational approach is: (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

37. What amount of time of a typical client's evaluation program is spent on the situational approach (Note: the evaluation of his work behaviors and not the work adjustment component)? (Check only one.)

1. _____ None
2. _____ Less than 1 week
3. _____ Between 2 to 4 weeks

Please go on to the next page.

4. _____ Between 5 to 7 weeks
5. _____ Between 8 to 10 weeks
6. _____ Between 11 to 13 weeks
7. _____ Between 14 to 16 weeks
8. _____ Between 17 to 19 weeks
9. _____ Between 20 to 30 weeks
10. _____ More than 30 weeks (please specify time-_____weeks)

38. Please rank the following vocational evaluation approaches in the order you feel they best contribute to an overall evaluation program. (1 for most significant to 5 for least significant)

1. _____ Situational approach
2. _____ Psychological testing approach
3. _____ Job analysis approach
4. _____ Job sample approach
5. _____ Job tryout approach

Section III: Information Concerning Services Provided to Clients in Addition to the Vocational Evaluation Program

39. Work adjustment has been defined in the introduction as a therapeutic process designed to enhance an individual's vocational potential by providing for: (1) the development of physical tolerances and capacity; (2) information and experience; or (3) a modification of inappropriate work behaviors.

A work adjustment program is: (Check only one.)

1. _____ Typically not provided for our clients
2. _____ Typically provided by either our vocational evaluation unit or by a department within our facility
3. _____ Typically provided by an outside agency
4. _____ Provided by both our facility and an outside agency

40. What types of work adjustment are provided in your program? (Check those appropriate.)

1. _____ There is no work adjustment program
2. _____ Developing the individual's physical potential (e.g., physical work tolerance, accuracy and speed, independent living...)
3. _____ Providing information (e.g., job readiness, remedial education, occupational information...)
4. _____ Providing experience (e.g., exposing habilitation clients to a work environment...)
5. _____ Modifying work behavior (e.g., breaking habits of tardiness, increasing concentration...)

41. Where do you do work adjustment in your facility? (Check those that are appropriate.)

1. _____ We do not have a work adjustment program
2. _____ Workshop
3. _____ Counseling

 Please go on to the next page.

4. _____ Evaluation unit
5. _____ Occupational therapy
6. _____ Training areas or work stations within the facility
7. _____ In job settings outside the facility
8. _____ Specify other_____

42. Upon completion of their evaluation program, what percentage of the clients move into the following areas: (Indicate a % for each appropriate category.)

1. ____% Direct placement
2. ____% Training (vocational or trade)
3. ____% Continued education (high school, college...)
4. ____% Workshop (transitional)
5. ____% Workshop (terminal)
6. ____% On the job training
7. ____% Not feasible for rehabilitation
8. ____% Work adjustment

Total: 100%

43. Does your facility routinely conduct a follow-up of the clients that have been evaluated?

1. _____ No
2. _____ Yes

44. Is a feedback of follow-up information on clients you have evaluated provided to your vocational evaluation program?

1. _____ No
2. _____ Yes

Please go on to the next page.

45. Has your approach to vocational evaluation changed significantly within the past year? (Significant change includes serving a different population of clients, a change in techniques or services provided or a change in objectives.)

1. _____ No
2. _____ Yes

If Yes, please describe briefly how your program changed from the old to the new. (Use additional paper if necessary.)

Please go on to the next page.

46. Do you have a staff member full or part-time involved in development, modification or analysis of evaluation techniques?

1. _____ No
2. _____ Yes

If Yes, please describe briefly the purpose of the research and whatever outcomes are available.

Please go on to the next page.

47. Are there any additional questions you feel might be appropriate in order to get a better understanding of the vocational evaluation process?

1. _____ No
2. _____ Yes

If Yes, please indicate these below.

Finished! Thanks for your help.

APPENDIX B

RESEARCH AND TRAINING CENTER IN VOCATIONAL REHABILITATION
UNIVERSITY OF PITTSBURGH • 727 GOUCHER STREET • JOHNSTOWN, PENNSYLVANIA 15905 • PHONE (814) 255-4313

Dear Agency Director:

The enclosed questionnaire is being selectively distributed to a number of rehabilitation facilities. We would like to urge your cooperation in providing the information requested.

This survey, conducted by the Research and Training Center of the University of Pittsburgh, will provide the necessary data to make a nationwide assessment of vocational evaluation practices and methods.

The results of this important survey will be circulated to participating facilities.

We encourage you to complete the questionnaire as soon as possible, and return it to the Research and Training Center.

Thank you for your cooperation.

Sincerely,

C. L. Roberts
Executive Director
Association of Rehabilitation Centers, Incorporated

A. C. Suazo
Executive Director
National Association of Sheltered Workshops

E. B. Whitten
Executive Director
National Rehabilitation Association

REFERENCES

Affleck, Paul E. Establishing a vocation evaluation work adjustment unit. Supported in part by a demonstration grant (No. RD 873) from the Rehabilitation Services Administration, 1967.

Banister, H. F., & Overs, Robert P. Obtaining and using actual job samples in a work evaluation program. Supported in part by a demonstration grant (No. RD 412) from the Rehabilitation Services Administration, 1959-1964.

Bellows, Roger M. The status of selection and counseling techniques for dental students. Journal of Consulting Psychology, 1940, 4, 10-16.

Bitter, James A. Three habilitation approaches in a cooperative school-sheltered workshop program. Proceedings of the Vocational Rehabilitation Subsection of the American Association on Mental Deficiency Conference, Denver, May 1966.

Blackman, Leonard S., & Siperstein, Gary N. Job analysis and the vocational evaluation of the mentally retarded. Rehabilitation Literature, April 1968, 29(4).

Blum, Milton L. Industrial psychology and its social foundations. New York: Harper and Brothers, 1956.

Buros, Oscar K. The sixth mental measurements yearbook. New Jersey: The Gryphon Press, 1965.

Campbell, John. Work evaluation in a community evaluation center. Proceedings of the seminar Some Recent Advances and Research in Vocational Evaluation, Research and Training Center in Vocational Rehabilitation, University of Pittsburgh, January 1968.

Caniff, Charles E. Standards for rehabilitation centers and facilities. Association of Rehabilitation Centers, Inc., 1965.

Chouinard, E. L. Work capacity evaluation. Institute on Work Evaluation, May T. Morrison Center for Rehabilitation, San Francisco State College, December 1959.

Chyatte, Samuel B., & Birdsong, J. Normal prethreshold motor learning-A motion time study analysis. Study now in progress at the Regional Rehabilitation Research and Training Center #6, Emory University, 1968.

Cronbach, Lee J. Essentials of psychological testing. New York: Harper and Row Inc., 1960.

Cundiff, George, Henderson, Seth, & Little, Neal. Training guides in evaluation of vocational potential for vocational rehabilitation staff. Third Institute on Rehabilitation Services, Norman, Oklahoma, 1965.

Cundiff, George, Pomp, Hymen, & Weiner, Hubert. Standards for rehabilitation centers and facilities. Association of Rehabilitation Centers, Inc. June 1965.

Directory of rehabilitation facilities. Association of Rehabilitation Centers, Washington, D. C., 1968. Also in Journal of Rehabilitation, July-August 1968, 34(4).

Fiske, Donald W. Problems in measuring capacity of performance. Proceedings of the Iowa Conference on Pre-vocational Activities, State University of Iowa, 1960.

Fleishman, Edwin A. Development of a behavior taxonomy for describing human tasks: A correlational-experimental approach. Journal of Applied Psychology, February 1967, 51(1), 1-10.

Fleishman, Edwin A. Psychomotor selection tests: Research and application in the United States Air Force. Personnel Psychology, 1956, 9, 449-468.

Gellman, William. Principles of vocational evaluation. Rehabilitation Literature, April 1968, 29(4), 98.

Gellman, William. A scale of employability for handicapped persons. Office of Vocational Rehabilitation Project Report No. 64-57, 1960.

Gellman, William. The vocational adjustment shop. Personnel and Guidance Journal, April 1961, 39(8), 630-633.

Gilbreth, Frank B., & Gilbreth, Lillian M. Applied motion study. New York: The Macmillan Co., 1917.

Goldman, Leo. Testing handicapped clients. Rehabilitation Counseling Bulletin, December 1961, 4(4), 162-169.

Goldstein, Harris K. Research design and execution in vocational evaluation. Paper presented at National Rehabilitation Association Convention, New Orleans, October 1968.

Graves, Susan. TOWER: Testing orientation and work evaluation in rehabilitation. Institute for the Crippled and Disabled, 1967.

Hilyard, Ernest R., & Atkinson, Richard C. Introduction to psychology. New York: Harcourt, Brace and World Co., 1967.

Hoffman, Paul R. VRA activities that have meaning for work evaluators. Third Annual Conference of the American Association of Work Evaluators, May 1967.

Judd, James. Sectional meeting reports: Defining vocational evaluation and work adjustment. Proceedings of the Vocational Evaluation Curriculum Development Workshop, Stout State University, April 1967.

Kludt, Carl B. Putting the hard-core unemployed into jobs. A report of the Business - Civic Leadership Conference on Employment Problems. Part I, Chicago, Illinois, 1967.

Lang, Jerry W. Instructional materials development in sheltered workshops. From paper presented at the Vocational Rehabilitation Subsection meetings of the American Association on Mental Deficiency Conference, Denver, Colorado, 1967.

Little, Neal D. Guidelines for organization and operation of vocational evaluation units. Fourth Institute on Rehabilitation Services, May 1966.

McCauley, William H. Impact of PL 565 on the handicapped. Journal of Rehabilitation, September-October 1964, 30(5), 25-29.

Melton, Arthur W. Apparatus tests. Government Printing House, Washington, D. C., 1947.

Miller, Maurine R. Work evaluation manual for Goodwill Industries. Goodwill Industries of America, Inc., Washington, D. C., 1968.

Moed, Martin G. Procedure and practices in pre-vocational evaluation: A review of current programs. Proceedings of the Iowa Conference on Pre-vocational Activities, State University of Iowa, 1960.

Nadolsky, Julian M. Evaluation criteria: An essential precursor to systematic vocational evaluation. Rehabilitation Counseling Bulletin, March 1966, 9(3), 1-6.

Neff, Walter S. Problems of work evaluation. Personnel and Guidance Journal, March 1966, 44(7), 682-688.

Neff, Walter S. Research issues in vocational evaluation. Proceedings of the Iowa Conference on Pre-vocational Activities, State University of Iowa, 1960.

Nixon, Russell A. Opening address. Paper presented at the 1968 National Rehabilitation Conference, New Orleans, Louisiana, 1968.

Pauhle, Peter G. Development of a system of work capacity assessment for the disabled. Supported in part by a demonstration grant (No. RD 806P) from the Rehabilitation Services Administration, 1965.

Redkey, Henry. The function and value of a pre-vocational unit in a rehabilitation center. American Journal of Occupational Therapy, 1957, 30(1), 20-24.

Rosenberg, Bernard. The job sample in vocational evaluation. Supported in part by a demonstration grant (No. RD 561) from the Rehabilitation Services Administration, 1967.

Sakata, Robert, & Sinick, Daniel. Do work samples work? Rehabilitation Counseling Bulletin, June 1965, 8(4), 121-124.

Sidwell, Richard T., Ireland, Karl L., & Koeckert, Gordon A. Use of actual job samples in prevocational and work evaluation units. Rehabilitation Counseling Bulletin, March 1961, 5(1), 17-21.

Siegel, Sidney. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill Book Co., 1956.

Sinick, Daniel. Client evaluation: Work task approach. Rehabilitation Record, March-April 1962, 6-8.

Speiser, Allen. The role of the evaluator in a sheltered workshop. Proceedings of the Vocational Evaluation Curriculum Development Workshop, Stout State University, 1967.

Steiner, William. Determining the levels of vocational capability and evaluating job potential. Proceedings of the seminar Some Recent Advances and Research in Vocational Evaluation, Research and Training Center in Vocational Rehabilitation, University of Pittsburgh, January 1967.

Super, Donald E., & Crites, John O. Appraising vocational fitness by means of psychological tests. New York: Harper and Row, Inc., 1962.

Terman, Lewis M. The measurement of intelligence. Boston: Houghton Mifflin Co., 1916.

Thompson, David A., & Pauhle, Peter G. Development of an elemental motion analysis for man-work matching in vocational rehabilitation and placement. Archives of Physical Medicine and Rehabilitation, October 1963, 545-548.

Thompson, Nellie Z. Experimental evaluative instrument based on standards for sheltered workshops. National Institute on Workshop Standards, 1960.

Vocational rehabilitation amendments of 1968. 90th Congress 2nd Session, Report No. 1309.

Walker, Robert A. Prevocational contributions to vocational rehabilitation. American Journal of Occupational Therapy, 1957, 11(4), 250.

White, B., & Redkey, H. The pre-vocational unit in a rehabilitation center. U. S. Dept. of Health, Education and Welfare, Office of Vocational Rehabilitation, Washington, D. C., 1956, 2.

Willard, William. Putting the hard-core unemployed into jobs. A report of the Business - Civic Leadership Conference on Employment Problems, Part I. Chicago, Illinois, 1967.

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